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OHIO ENVIRONMENTAL PROTECTION AGENCY (Ohio EPA)

DIVISION OF EMERGENCY & REMEDIAL RESPONSE (DERR)

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PRELIMINARY ASSESSMENT/SITE INVESTIGATION

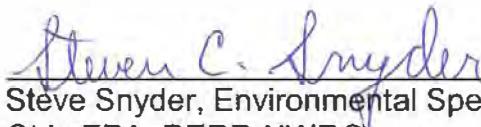
BUCYRUS CITY DUMPRECEIVED
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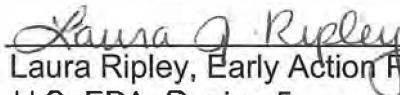
Diane Crosby, Environmental Specialist
Ohio EPA, DERR-SIFU9/22/04
Date

Reviewed by:



Steve Snyder, Environmental Specialist
Ohio EPA, DERR-NWDO9/27/04
Date

Approved by:



Laura Ripley, Early Action Project Manager
U.S. EPA, Region 510/03/2004
Date

Upon review and approval of this PA/SI, please sign and fax this sheet to:
(614) 836-8795, Attention: Diane Crosby

PRELIMINARY ASSESSMENT/SITE INVESTIGATION

BUCYRUS CITY DUMP

Crawford County

Bucyrus, Ohio

40° 48' 00.0" N

82° 59' 38.0" W

U.S. EPA ID: OHN000509113

Prepared by:

**OHIO ENVIRONMENTAL PROTECTION AGENCY
Division of Emergency & Remedial Response**

September, 2004

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY.....	1
2.0 INTRODUCTION.....	1
3.0 SITE BACKGROUND.....	1-6
3.1 Site Description and History.....	1-4
3.2 Site Geology & Hydrology.....	4-6
4.0 SAMPLING LOCATIONS & DISCUSSION OF RESULTS.....	6-15
4.1 Soil.....	8-10
4.2 Sediment.....	11-12
4.3 Surface Water.....	12-13
4.4 Ground Water.....	13
5.0 MIGRATION EXPOSURE PATHWAYS.....	17-18
5.1 Soil Exposure Pathway.....	17
5.2 Groundwater Exposure Pathway.....	17
5.3 Surface Water Exposure Pathway.....	17
5.4 Air Exposure Pathway.....	18
6.0 REFERENCES.....	19

LIST OF FIGURES

1 -	Topographic Map of Site Location.....	2
1a-	Topographic Map of Site Location with Industries.....	2
2 -	Site Features Map.....	3
3-	Sample Location Map.....	14
3a-	Residential Well Sample Location Map.....	15

LIST OF TABLES

1 -	Significant Soil Sampling Results.....	16
2 -	Significant Sediment Sampling Results.....	16
3-	Significant Ground Water Results.....	16
4-	Significant Surface Water Results.....	16

APPENDICES

Complete Analytical Results	Appendix A
GIS Maps and Data	Appendix B
Well Logs	Appendix C
Photographic Log	Appendix D
Test Boring Records	Appendix E
Sandusky-Bucyrus Assessment Unit	Appendix F

1.0 EXECUTIVE SUMMARY

Ohio Environmental Protection Agency (Ohio EPA) personnel conducted a Preliminary Assessment/Site Investigation (PA/SI) at the former Bucyrus City Dump (site) in Bucyrus Ohio, Crawford County on June 2, 2004 (soil and ground water) and June 22, 2004 (sediment and surface water) (Figure I). The purpose of this PA/SI was to determine if hazardous substances from previous waste disposal activities at the site are migrating off-site, and if so, whether these substances pose a potential threat to human health and the environment. Data collected will be used to determine whether or not the site is of NPL caliber by documenting observed releases, observed contamination and potential targets.

Work conducted during the PA/SI included the collection of thirty-two (32) soil, sediment, surface water and ground water samples. This total includes background and duplicate samples.

2.0 INTRODUCTION

The Ohio EPA, Division of Emergency and Remedial Response (DERR) formed a cooperative agreement with the United States Environmental Protection Agency (U.S. EPA) Region 5 to conduct a PA/SI of the former Bucyrus City Dump, EPA ID# OHN000509113 (Latitude 40° 48' 00.0", Longitude 82° 59' 38.0"). There have been no other previous investigations conducted at this site.

3.0 SITE BACKGROUND

3.1 Site Description and History

The Bucyrus City Dump is located in Crawford County, Bucyrus Township at 1500 W. Southern Avenue within the corporation limits of the City of Bucyrus. The fill area is adjacent to both the south side of the Sandusky River and the east side of the Bucyrus WWTP (Figure 2). The topography of the site is relatively flat containing mostly open areas of grass, with the exception of a small patch of woods at the southwest corner of the fill area. The northern boundary along the river bank is also wooded. The City of Bucyrus is currently operating a compost facility on the north-central portion of the site (Figure 2). The city has temporarily suspended public use of the compost area and is contemplating whether to continue this service. The City of Bucyrus currently owns the property and have owned it since prior to 1968.

The site is about 20 acres and fill material may extend to depths of 12 to 15 feet. These depths are based on historical information and on six GeoProbe™ test borings from the June 2, 2004 sampling event (Appendix E: Test Boring Records). The north slope of the dump extends along the river approximately 1,000 lineal feet and is relatively void of soil cover material. Approximately 600 feet of the river along the north slope of the site is being affected by erosion and washout. Within this 600 foot segment, waste materials and leachate were

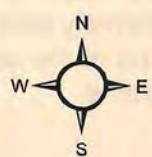
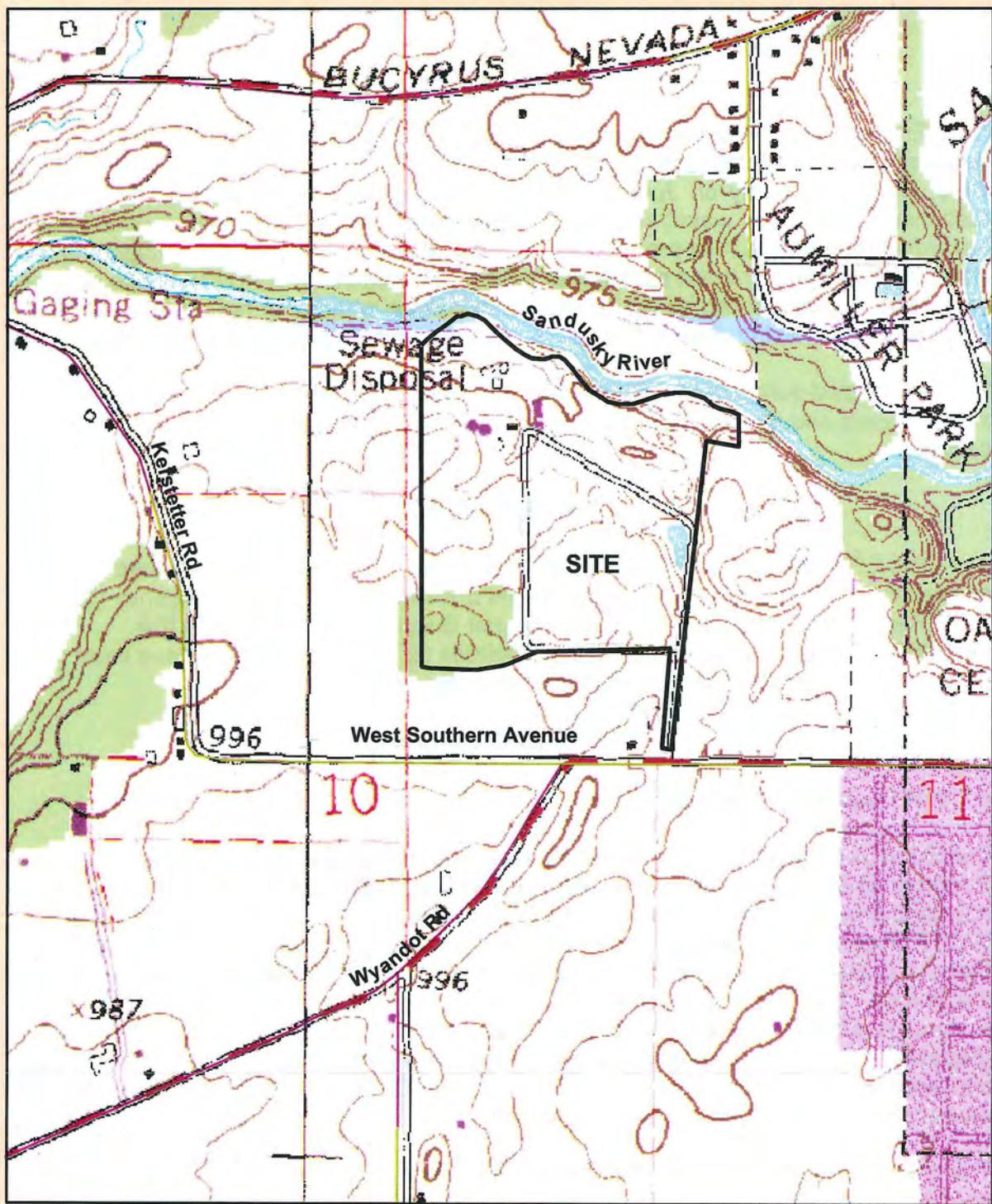


Figure 1
Bucyrus City Dump
Site Location Map
Bucyrus, Ohio U.S.G.S Quadrangle

Figure 1a
Bucyrus City Dump
Site Location Map with Industries
Bucyrus, Ohio U.S.G.S Quadrangle

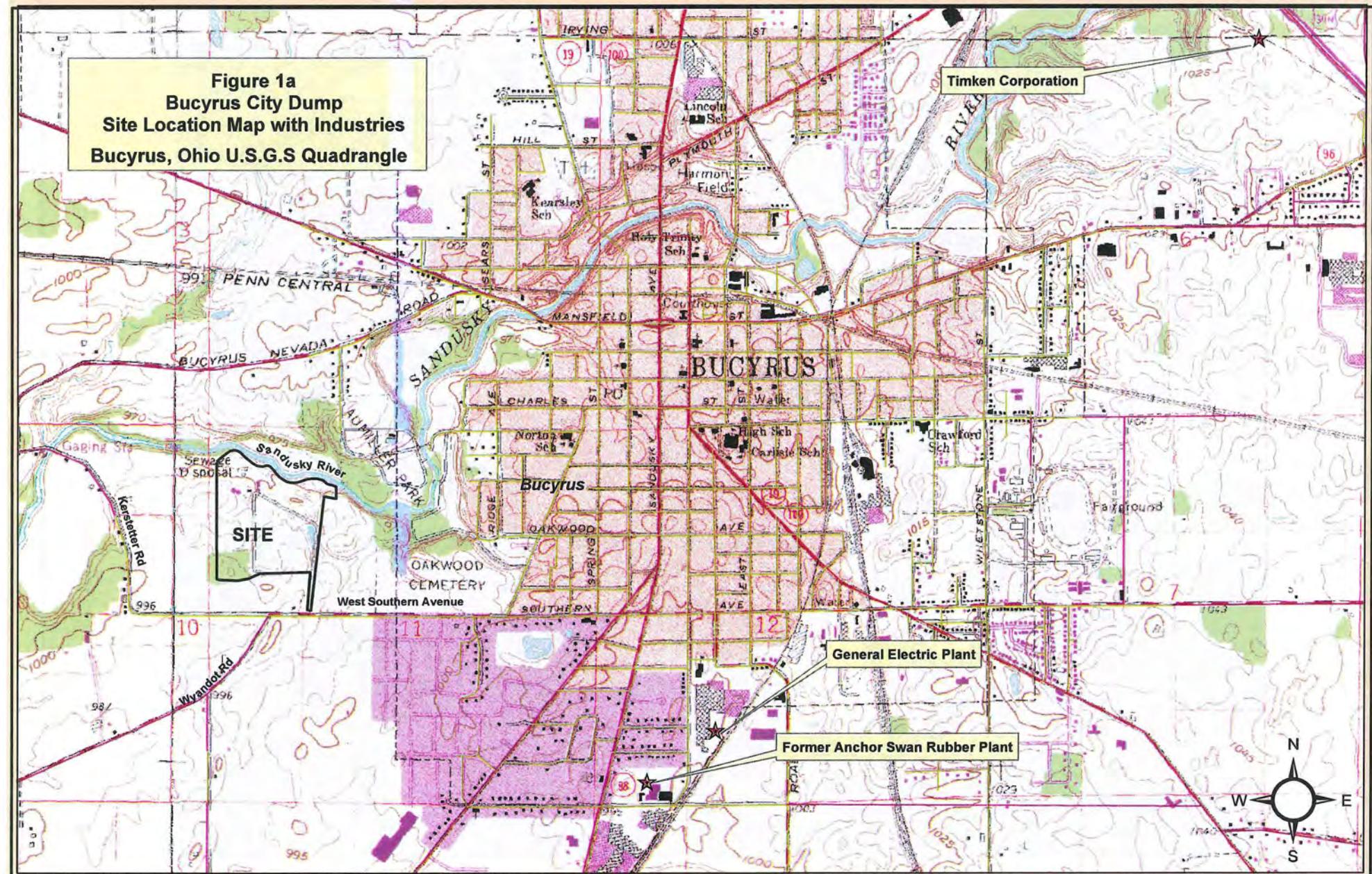
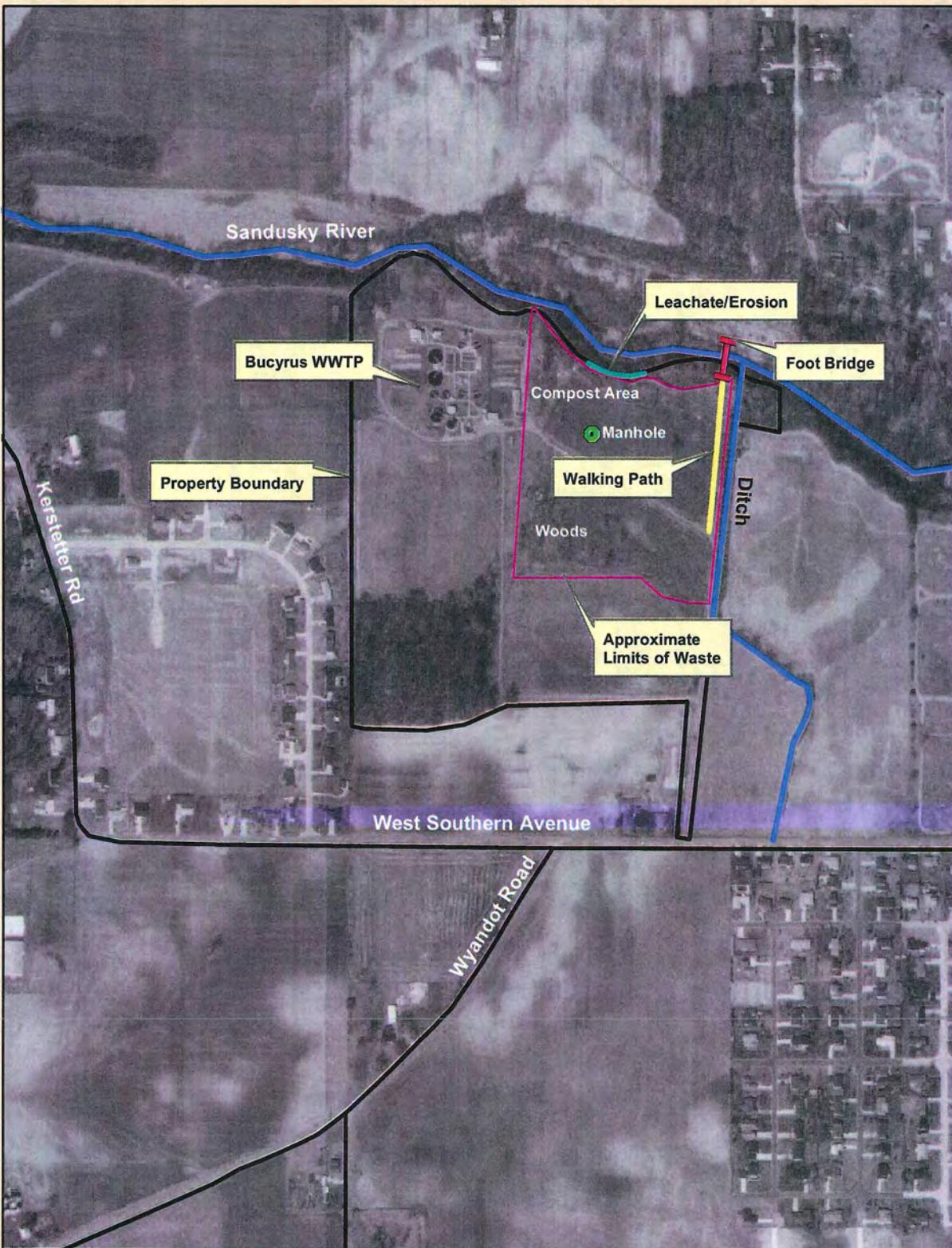
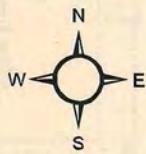


Figure 2
Site Features Map
Bucyrus City Dump



0 450 900 1,800 Feet



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5

observed entering into the river. A drainage ditch extends approximately 1,000 feet along the eastern limits of the dump. Several areas along the eastern drainage ditch contained exposed waste materials from rodents, erosion and washout. A large diameter combined sewer overflow/storm water pipe transects the dump from the south to north and discharges into the river downstream of the site. This sewer has a manhole access located near the center of the fill area and just north of the access road that transects the site from east to west. There is another sewer outfall upstream of the active outfall that appears to be abandoned. A steady stream of water comes from this outfall and appears to be drainage/leachate from the dump.

The nearest house to the limits of waste is approximately 650 ft south and west of the site and residential development is ongoing in the area. Because there is no fence to restrict access, local residents including children are easily able to enter the site. In fact, the City's recent construction of a foot bridge over the river and walking path along the eastern perimeter of the fill area that leads to the community park, encourages use of the site by local citizens.

Little information is available regarding the site. The City of Bucyrus was not able to furnish any historical records regarding disposal operations, such as the depth of fill and/or the types of waste materials. According to Ohio EPA files, the site ceased accepting waste in 1969 when the Crawford County Landfill opened for business. Commercial, industrial, and residential waste materials were likely dumped adjacent to and within the flood plain of the river. Historical aerial photographs from the early 1960s show evidence of burning and trash piles east of the WWTP. Industrial wastes (rubber, drums, dried paint sludge) were observed along the east and north slopes of the dump and in the small wooded area in the southwest corner of the fill area. According to local residents, these wastes were likely generated from the GE Light Bulb Plant, Timken, Anchor Swan Company, and foundry operations. These companies were in business when the dump was in operation and are still in business today with the exception of foundry operations (see Figure 1a for locations relative to the dump).

3.2 Site Geology and Hydrology

The oldest rocks exposed in Crawford County are Devonian in age (about 345 to 395 million years ago). During this period, saltwater seas covered most of Ohio. Thick deposits of carbonate material accumulated in these seas setting the stage for the formation of the Columbus and Delaware limestones that outcrop in western Crawford County. In the late Devonian, the depositional environment changed as the seas deepened and became more stagnant. Carbon-rich sediments increased as the lime decreased. These thick deposits of sediments consolidated into the massive Olentangy and Ohio shale.

At the beginning of the Mississippian Period, gray shale was still accumulating. However, as the land to the east of the county was uplifting, gray mud formed the Bedford shale and the sandy sediment, also referred to as the Berea sandstone. Following the deposition of the Berea sandstone, the inland seas again encroached, depositing mud which makes up

the Sunbury shale. Another series of uplifts in the east is responsible for the increased deposition of sands making up the Cuyahoga formation which consists of alternating beds of sandstone and siltstone. Crawford County lies on the east flank of the Cincinnati Arch, therefore, the rocks strike north-south and dip eastward or slightly southeast.

The regional inclination or dip is 31 feet per mile. The Devonian age rocks outcrop in the western part of the county and the younger Mississippian formations are exposed along the eastern part of the county. A cross-section was constructed using boring information from the Ohio Geological Survey bulletins and the ODNR Water Division maps. The surficial sediments are a result of several glaciation events where glaciers advance, scouring the bedrock and depositing the drift material as end moraines when advancement ceased. When the glacier advanced slowly, drifts forming the Wisconsin Ground moraine were evenly deposited.

The depth to bedrock in the Bucyrus area is between 35 and 70 feet below land surface (ft-bls). The bedrock in this area is the basal portions of the Ohio shale. The Ohio shale of the Ohio Formation is late Devonian in age. The Ohio Formation consists of three members: Huron, Chagrin and Cleveland. The Huron and Cleveland units are typically black or brownish black fissile shales with a high content of carbonaceous matter and/or pyrite either in fine crystals, modules or flakes. The Chagrin, or middle unit, is a gray siliceous shale and differs in the Huron and Cleveland because it lacks organic and pyritic matter.

The Ohio Formation is commonly quite massive and the thickness varies from less than 400 feet to 3,400 feet. The Bucyrus area is located very close to the contact between the basal portion of the Ohio Formation and the top of the Delaware Formation which consists of generally evenly bedded fossiliferous limestone with the shale partings (inter-bedded shale). The Delaware limestone and Ohio shale contact dips generally to the east and is approximately 165 ft-bls in the Bucyrus area. The Ohio shale is believed to act as an aquitard. It has a very low hydraulic conductivity and is thought to yield little or no groundwater (ODNR).

The surficial sediments are a result of several glaciation events where glaciers advanced and retreated, scouring the bedrock and depositing geologic materials in a range of particle sizes as end moraines when advancement ceased. The term end moraine refers to a linear zone of slightly higher topography, which in Ohio are oriented in a series of east-west trending belts, representing places where the glaciers paused or retreated. Because end moraine was deposited at the margin of a melting ice sheet, the sedimentary materials ranging in size from clay, silt, sand, gravel, cobbles, and even large boulders were sorted to some degree by the action of flowing surface water. Sorted sand and gravel deposits are often found in end moraines, enclosed within a more clay rich matrix. Ground moraine, in contrast, consists of unsorted geologic materials transported by the ice.

The use of shallow groundwater in Crawford County for domestic purposes is limited based

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7

on either poor pumping rates due to low hydraulic conductivities in the sediments or undesirable amounts of hydrogen sulfide in the bedrock. To the west of Bucyrus, at depths of less than 300 feet, test wells have been developed that produce between 100 and 500 gallons of water per minute. Farm and domestic wells have been developed producing 10 to 15 gallons per minute at depths less than 95 ft-bls. In the Bucyrus area, like much of central Crawford County, groundwater use is restricted to the shallow glacial till sediments which generally produce less than three gallons per minute (ODNR Water Division map). There are approximately 8 residential wells less than ½ mile from the site (ODNR Well Logs).

Dry wells are not uncommon and home owners rely upon additional storage and/or cisterns to maintain daily requirements of water. Although shallow wells less than 40 ft-bls often yield fresh and hydrogen sulfide-free water, deeper drilling will yield sulfurous water. The Bucyrus area relies on surface water for most commercial and domestic uses. The surface water intake is located upstream of the site on the Sandusky River.

By 1904, water was taken directly from the Sandusky River and forced through mechanical filters into the water mains. Dams were built to impound water for summer use. By 1941, other reservoirs had been built in the area and water was treated with alum for coagulation and chlorine for disinfection. In 1983, a public water supply was established.

The Bucyrus area is known to have a seasonally high perched water table which at times is less than 1 ft-bls. This high water table and the relatively low hydraulic conductivity of the soils and sediments cause surface ponding of rainwater after storms. Shallow groundwater south of Bucyrus is believed to flow from east to west toward the Little Scioto River.

4.0 SAMPLING LOCATIONS AND DISCUSSION OF RESULTS

Soil, sediment, surface water and ground water samples were collected during the PA/SI sampling event. Samples were analyzed by U.S. EPA Contract Laboratory Program (CLP) laboratories. Analyses included the following parameters: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/PCBs, Target Analyte List (TAL) metals and Cyanide. Complete analytical results of this investigation are contained in Appendix A.

Significant detections are located in Tables I-4. Under the Hazard Ranking system (HRS), results are considered significant if the concentrations are three times the background concentrations and above the Contract Required Detection Limit (CRDL) or Contract Required Quantitation Limit (CRQL). The data were reviewed by U.S. EPA Region V personnel for compliance with the Contract Laboratory Program (CLP), and electronically validated by using the U.S. EPA Computer-Aided Data Review and Evaluation (CADRE) software program.

Observed wastes from rusted out 55 gallon drums located along the river were not sampled

as part of this investigation. This was due in part to a recent rain event that made it unsafe to collect samples on the steep slope of the river bank (Figure 3). There were several drums with what appeared to be dried paint sludge exposed along the river bank in the northwest corner of the site.

A photographic log of Bucyrus City Dump can be found in Appendix D. Standard quality assurance and quality control (QA/QC) procedures for PA/SI field activities were followed during the investigation. Procedures for sample collection, packaging and shipping, and equipment decontamination, are documented in the Quality Assurance Project Plan (QAPP), for Region V Superfund SI activities for Ohio EPA, and the Ohio EPA Field Standard Operating Procedures (Reference 6).

4.1 Soil

A total of ten (10) soil samples (surface and subsurface) were collected, including background and duplicate samples. Subsurface samples were collected using direct push technologies (i.e., Geoprobe™), soil cores were collected at 4 of the 10 on-site locations. The remaining 6 on-site soil samples were collected from 0 - 10" using shovels and spoons. Soil samples were collected to determine the potential for direct exposure of contaminants to the public and to determine the potential for migration of the contaminants to the Sandusky River and for the migration of contaminants from the soil into ground water. Soil sample locations were chosen based on historical records and current physical appearance of the dump. The following is a discussion of soil sample locations and results. Refer to Table 1 for significant detections.

Sample GP-SO-01 (E1280/ME1280) was collected 7-8' below ground surface (bgs) east of the woods from soil cores with Ohio EPA's GeoProbe (Figure 3). Significant detections of volatile organic compounds (VOCs) include Acetone at 170 ppb and 2-Butanone at 52 ppb. Both of these compounds are common lab contaminants.

Significant semi-volatile organic compounds (SVOCs) detected include Phenanthrene at 930 ppb, Anthracene at 580 ppb, Pyrene at 1100 ppb, Benzo(a)anthracene at 420 ppb, Chrysene at 830 ppb, Bis(2-ethylhexyl)phthalate at 630 ppb, Benzo(b)fluoranthene at 1300 ppb, Benzo(a)pyrene at 1600 ppb, Indeno(1,2,3-CD)-pyrene at 1100 ppb, Dibenz(a,h)-Anthracene at 800 ppb and Benzo(g,h,i)perylene at 2800 ppb. Pesticides/PCBs detected include: Heptachlor Epoxide at 2.8 ppb, 4,4'-DDE at 14 ppb, 4,4,-DDD at 12 ppb and Aroclor-1254 at 170 ppb. Significant TAL Metals detected include: Antimony at 8.8 ppm, Calcium at 30000 ppm, Magnesium at 7990 ppm and Zinc at 1400 ppm.

Sample GP-SO-02 (E1281/ME1281) was collected approximately 100 yards east of the woods from Geoprobe soil cores at a depth of 12 feet bgs. Significant detections from this sample are listed below.

VOCs detected include: Acetone at 97 ppb, 2-Butanone at 23 ppb and 2-hexanone at

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15 ppb. SVOCs detected include: Acenaphthene at 870 ppb, Dibenzofuran at 450 ppb, Fluorene at 1200 ppb, Phenanthrene at 670 ppb, Chrysene at 340 ppb, Bis(2-ethylhexyl)phthalate at 60000 ppb and Di-n-octylphthalate at 1400 ppb.

Pesticides/PCBs detected include: Beta-BHC at 10 ppb, Heptachlor Epoxide at 7.3 ppb, 4,4'-DDE at 10 ppb, 4,4'-DDD at 31 ppb, 4,4'-DDT at 8.7 ppb, Endrin Ketone 6.1 ppb, Gamma-Chlordane at 27 ppb and Arochlor-1254 at 1000 ppb. TAL-Metals detected include: Antimony at 408 ppm, Cadmium at 19.4 ppm, Calcium at 37400 ppm, Chromium at 54.7 ppm, Copper at 158 ppm, Magnesium at 7070 ppm, Mercury at 15.9 ppm, Nickel at 70.9 ppm, Sodium at 728 ppm, Zinc at 4580 ppm and Cyanide at 20.5 ppm.

Sample GP-SO-03 (E1282/ME1282) was collected south of the nature trail bridge from Geoprobe soil cores at a depth of 6 feet bgs. Significant detections from this sample are listed below.

VOCs detected include: Acetone at 33 ppb, Methylcyclohexane at 45 ppb, Toluene at 20 ppb, 2-hexanone at 45 ppb and Xylenes at 17 ppb. SVOCs detected include: Phenanthrene at 500 ppb, Fluoranthene at 570 ppb, Pyrene at 730 ppb, Butylbenzylphthalate at 540 ppb, Chrysene at 380 ppb, Bis(2-ethylhexyl)phthalate at 37000 ppb, Di-n-octylphthalate at 550 ppb, Benzo(b)fluoranthene at 360 ppb and Benzo(a)pyrene at 340 ppb. Pesticide/PCB compounds detected include: Heptachlor at 4 ppb, Heptachlor Epoxide at 3 ppb, Dieldrin at 24 ppb, 4,4'-DDD at 27 ppb and Alpha-chlordane at 6.6 ppb, Gamma-chlordane at 34 ppb and Aroclor-1254 at 260 ppb. Significant TAL metals detected include: Antimony at 34.3 ppm, Calcium at 33800 ppm, Magnesium at 8150 ppm, Mercury at 2.3 ppm and Sodium at 518 ppm.

Sample SO-04 (E1283/ME1283) was a surface sample collected east of the woods at a depth of 0-2'. Significant detections from this sample are listed below.

No significant VOCs were detected. SVOCs detected include: Phenanthrene at 950 ppb, Fluoranthene at 1300 ppb, Pyrene at 1600 ppb, Benzo(a)anthracene at 780 ppb, Chrysene at 930 ppb, Bis(2-ethylhexyl)phthalate at 3600 ppb, Benzo(b)fluoranthene at 850 ppb, Benzo(k)fluoranthene at 750 ppb, Benzo(a)pyrene at 760 ppb, Indeno(1,2,3-CD)-pyrene at 600 ppb and Benzo(g,h,i)Perylene at 740 ppb. Two significant Pesticide/PCB samples were detected: Heptachlor at 3.5 ppb, Heptachlor Epoxide at 12 ppb, 4,4'-DDE at 6.8 ppb, Endrin at 8.6 ppb, 4,4'-DDT at 37 ppb, Endrin Ketone at 5.7 ppb and Endrin Aldehyde at 18 ppb, Gamma-chlordane at 45 ppb and Aroclor-1254 at 1700 ppb. TAL metals detected include: Antimony at 108 ppm, Cadmium 4.9 ppm, Calcium at 16100 ppm, Copper at 97.8 ppm and Zinc at 1720 ppm.

Sample SO-05 (E1284/ME1284) was collected north of the dump between the composting area and the Bucyrus WWTP. The sample was collected at a depth of 2 - 4". Significant detections for this sample are listed below.

No significant VOCs were detected. SVOCs detected include: Phenanthrene at 2300 ppb, Anthracene at 330 ppb, Fluoranthene at 3000 ppb, Pyrene at 3400 ppb, Benzo(a)anthracene 1500 ppb, Chrysene at 1800 ppb, Benzo(b)fluoranthene at 1500 ppb, Benzo(k)fluoranthene at 1600 ppb, Benzo(a)pyrene at 1700 ppb, Indeno(1,2,3-cd)-pyrene at 1200 ppb, Dibenzo(a,h)-anthracene at 610 ppb and Benzo(g,h,i)perylene at 1400 ppb. Pesticide/PCB compounds detected include: 4,4'-DDT at 4.4 ppb, Endrin ketone at 6.6 ppb, Endrin aldehyde at 6.0 ppb, Alpha-chlordane at 4.2 ppb, Gamma-chlordane at 12 ppb and Arochlor-1254 at 170 ppb. TAL metals detected include: Calcium at 55500 ppm and Magnesium at 14800 ppm.

Sample SO-06 (E1285/ME1285) and SO-07 (E1286/ME1286) (duplicate), were collected south of the access road in the middle of fill. The sample was collected at a depth of 2 - 4". Significant findings for these samples are listed below.

No significant VOCs were detected. SVOCs detected include: Phenanthrene at 950 ppb, Fluoranthene at 1600 ppb, Pyrene at 1800 ppb, Benzo(a)anthracene at 950 ppb, Chrysene at 1100 ppb, Bis(2-ethylhexyl)phthalate at 1000 ppb, Benzo(b)fluoranthene at 1100 ppb, Benzo(k)fluoranthene at 840 ppb, Benzo(a)pyrene at 950 ppb, Indeno(1,2,3-cd)-pyrene at 750 ppb, Dibenzo(a,h)-anthracene at 380 ppb and Benzo(g,h,i)perylene at 850 ppb. Pesticide/PCB compounds detected include: Heptachlor epoxide at 6.9 ppb, Endrin at 6.2 ppb, 4,4'-DDT at 150 ppb, Methoxychlor at 35 ppb, Endrin ketone at 8 ppb, Endrin aldehyde at 19 ppb, Gamma-chlordane at 53 ppb and Arochlor-1254 at 1500 ppb. TAL Metals detected include: Antimony at 20.4 ppm, Cadmium at 4.4 ppm, Calcium at 72400 ppm, Chromium at 52.4 ppm, Copper at 120 ppm, Magnesium at 8810 ppm, Mercury at 1.8 ppm, Silver at 3.4 ppm and Zinc at 625 ppm.

Sample SO-08 (E1287/ME1287) was collected in the northeast corner of the dump and east of the composting area. The sample was collected at a depth of 0 - 10". The following is a discussion of the significant detections.

No significant VOCs were detected. SVOCs detected include: Fluoranthene at 570 ppb, Pyrene at 660 ppb, Butylbenzylphthalate at 18000 ppb, Chrysene at 480 ppb, Bis(2-ethylhexyl)phthalate at 540 ppb, Benzo(b)fluoranthene at 490 ppb, Benzo(a)pyrene at 390 ppb, Indeno(1,2,3-cd)-pyrene at 370 ppb and benzo(g,h,i)perylene at 510 ppb. Pesticide/PCB compounds detected include: Endosulfan I at 43 ppb, Dieldrin at 23 ppb, 4,4'-DDD at 45 ppb, 4,4'-DDT at 6.9 ppb, Endrin Aldehyde at 6.6 ppb, Alpha-chlordane at 47 ppb, gamma-chlordane at 42 ppb and Arochlor-1254 at 180 ppb. TAL metals detected include: Antimony at 17.3 ppm, Cadmium at 4.9 ppm, Calcium at 74300 ppm, Magnesium at 35400 ppm and Mercury at 5.0 ppm.

Sample SO-09 (E1288/ME1288) was the background soil sample taken in a grassy field west of the dump and south of the Bucyrus WWTP. This sample was collected at a depth of 4 - 6" and based on analytical data, appears to be un-impacted by contaminants at the dump. The soil material was moist and did not contain any visible waste materials. Soil samples collected from within the dump area were interspersed

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with visible waste materials.

Sample GP-SO-10 (E1269/ME1269) was collected north of the compost pile from soil core tubes using the Geoprobe from 4-8 feet bgs. Significant detections from this sample are listed below.

The VOC detected was Acetone at 38 ppb and Xylenes(total) at 24 ppb. SVOCs detected include: Bis(2-Ethylhexyl)thalate at 9900 ppb. Pesticide/PCBs detected include: Beta-BHC at 4.3 ppb, Heptachlor Epoxide at 4.7 ppb, 4,4'-DDE at 4.3 ppb, 4,4'-DDD at 34 ppb, 4,4'-DDT at 6.7 ppb, Gamma-chlordane at 12 ppb and Aroclor-1254 at 210 ppb. TAL metals detected include: Antimony at 56.3 ppm, Calcium at 24800 ppm, Copper at 157 ppm, Magnesium at 9630 ppm, Sodium at 635 ppm, Mercury at 5.2 ppm and Zinc at 429 ppm.

4.2 Sediment

A total of seven (7) sediment samples, including background and duplicate samples were collected in the Sandusky River which borders the northern boundary of the site. The following is a discussion of sample locations and significant detections.

Sample Sed-01 (E1276/ME1276) was collected upstream of the dump in the Sandusky River. The water was 1 ½ feet deep and the sediment sample was collected 2" below the sediment surface. The sediment had a black appearance with a petroleum smell. The following significant compounds were detected.

There were no significant VOCs detected. SVOCs detected include: Naphthalene at 440 ppb, 2-Methylnaphthalene at 390 ppb, Acenaphthene at 2300 ppb, Fluorene at 2800 ppb, Phenanthrene at 5200 ppb, Anthracene at 4600 ppb, Fluoranthene at 19000 ppb, Pyrene at 45000 ppb, Benzo(a)anthracene at 12000 ppb, Chrysene at 13000 ppb, Benzo(b)fluoranthene at 5700 ppb, Benzo(k)fluoranthene at 7800 ppb, Benzo(a)pyrene at 12000 ppb, Indeno(1,2,3-cd)-pyrene at 4300 ppb, Dibenzo(a,h)-anthracene at 2100 ppb and Benzo(g,h,i)perylene at 6500 ppb. The only pesticide/PCB detected was Dieldrin at 6 ppb. No significant TAL metals were detected.

Sample Sed-02 (E1277/ME1277) was collected further upstream of Sed-01 on the Sandusky River. A composite sample was collected from both banks of the river. The sediment had a black/brown color with an organic odor. The following significant compounds were detected.

No significant VOCs or SVOCs were detected. Pesticide/PCBs detected include Alpha-chlordane at 4.7 ppb and Gamma-chlordane at 5.1 ppb. No significant TAL Metals were detected.

Sample Sed-03 (E1278/ME1278) was collected in a ditch along the east side of the

dump below a walking trail at the city park which is on the north side. There was water flowing in the ditch with a lot of visible trash, rocky bed and bank erosion. No significant VOCs, SVOCs or TAL metals compounds were detected. The pesticide Aroclor-1254 was detected at 64 ppb.

Sample Sed-04 (E1279/ME1279) was collected in the Sandusky River at the dump. There was visible trash in the bank of the dump. The following is a discussion of significant compounds detected.

No significant VOCs were detected. SVOCs detected include: 4-Methylphenol at 340 ppb, Acenaphthene at 510 ppb, Anthracene at 700 ppb, Fluoranthene at 4000 ppb, Pyrene at 5000 ppb, Benzo(a)anthracene at 1800 ppb, Chrysene at 2000 ppb, Benzo(b)fluoranthene at 1600 ppb, Benzo(k)fluoranthene at 1600 ppb, Benzo(a)pyrene at 1700 ppb, Indeno(1,2,3-cd)-pyrene at 990 ppb, Dibenzo(a,h)-anthracene at 500 ppb and Benzo(g,h,i)perylene at 1200 ppb. Pesticide/PCB compounds detected include: Beta-bhc at 7 ppb, 4,4'-DDD at 17 ppb, Endrin aldehyde at 9 ppb, Alpha-chlordane at 5.5 ppb, Gamma-chlordane at 10 ppb and Arochlor-1254 at 130 ppb. TAL metals detected include: Cadmium at 2.9 ppm and Mercury at 1.2 ppm.

Sample Sed-05 (E1329/ME1329) and Sed-06-duplicate (E1330/ME1330) were collected at the Bucyrus WWTP outfall on the north side of the river opposite of the dump. The sample had a strong sewage odor. The following is a discussion of significant compounds detected.

No significant VOCs were detected. SVOCs detected include: 4-Methylphenol at 8100 ppb, Phenanthrene at 1500 ppb, Fluoranthene at 2300 ppb, Pyrene at 2800 ppb, Butylbenzylphthalate at 530 ppb, Benzo(a)anthracene at 890 ppb, Chrysene at 1300 ppb, Bis(2-ethylhexyl)phthalate at 24000 ppb, Di-n-octyphthalate at 3700 ppb, Benzo(b)fluoranthene at 1100 ppb, Benzo(k)fluoranthene at 980 ppb, Benzo(a)pyrene at 1000 ppb, Indeno(1,2,3-cd)-pyrene at 700 ppb and Benzo(g,h,i)perylene at 830 ppb.

Sample Sed-07 (E1331/ME1331) was used as the background sediment sample and was collected in the ditch along the eastern boundary of the dump in the upstream portion. This ditch has intermittent seasonal flow. Low level SVOC's were detected in this sample. Sediment samples Sed-1 and Sed-2 were the intended background samples for river sediment. However due to visible contamination and odor in these river sediments, an alternative location was selected in the east drainage ditch where there was no obvious contamination. Likely sources of contaminants in Sed-1 and Sed-2 are from CSO upstream of the site.

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13

4.3 Surface Water

A total of eight (8), including background and duplicate samples were collected. Surface water samples were collected in the Sandusky River which borders the northern boundary of the site. No significant VOCs, SVOCs or Pesticide/PCBs compounds were detected in any of the surface water samples.

Sample SW-1 (ME1289) was collected upstream of the dump in the same location as Sed-01. The following TAL metals were detected: Aluminum at 2190 ppb, Iron at 1940 ppb and Manganese at 47.9 ppb.

Sample SW-2 (ME1290) and SW-3 (ME1291) DUP were collected at the confluence of the ditch and the Sandusky River. The ditch would be considered intermittent and there was water flowing at the time it was sampled. TAL metals detected include: Manganese at 66.2 ppb, Potassium at 5470 ppb and Cyanide at 11.9 ppb.

Sample SW-4 (ME1292) was collected in the Sandusky River downstream of the foot bridge. TAL Metals detected include: Aluminum at 1410 ppb, Iron at 1900 ppb and Manganese at 49.3 ppb.

Sample SW-5 (ME1293) was collected in the Sandusky River at the Bucyrus WWTP outfall. TAL Metals detected include: Aluminum at 1250 ppb, Iron at 1710 ppb, Manganese at 45.1 ppb and Mercury at 0.22 ppb.

Sample SW-6 (ME1294) was collected from an old abandoned storm sewer coming out of the dump near the Bucyrus WWTP. There was a steady flow of water from the pipe. Debris from the dump was visible in the water and around the pipe. The water had a slight petroleum odor. TAL Metals detected include: Iron at 9000 ppb, Lead at 4.3 ppb, Magnesium at 67000 ppb, Manganese at 370 ppb, Mercury at 0.21 ppb, Potassium at 35400 ppb and Zinc at 1240 ppb.

Sample SW-7 (ME1295) was collected from the slope of the dump next to the Sandusky River. There was a steady flow of leachate coming from around rocks and debris from the dump. TAL Metals detected include: Aluminum at 2770 ppb, Iron at 4630 ppb, Lead at 91.2 ppb, Magnesium at 65600 ppb, Manganese 417 ppb, Potassium at 20000 ppb, Sodium at 81300 ppb and Zinc at 132 ppb.

Sample SW-8 (ME1296) was an upstream background sample that appears to be unaffected by the dump. This sample was collected in the ditch that borders the dump to the east.

4.4 Ground Water

A total of two (2) ground water and five (5) residential well samples were collected including background and duplicate samples. These samples were collected to determine the presence of potential contaminants in the ground water beneath the site and to determine if contaminants have migrated off-site.

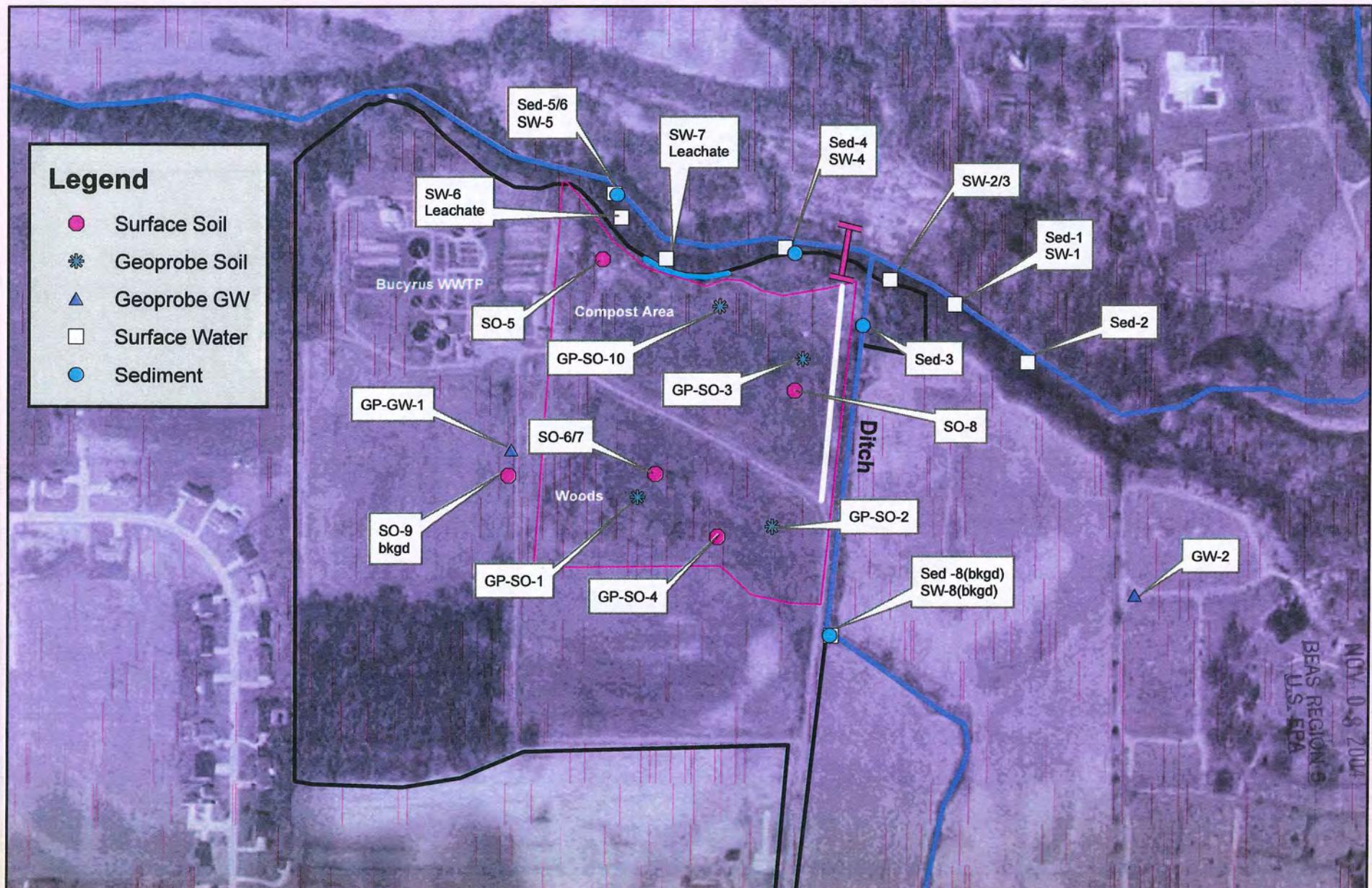
One Ground water sample was collected on-site using Ohio EPA's Geoprobe™. This sample was not filtered and was very turbid. Not all of the parameters were collected due to refusal and poor ground water recovery. The parameters VOC, SVOC, Pesticide/PCB or Cyanide were either not collected or no significant compounds were detected.

The following significant TAL metals were detected in sample GW-01 (ME1264): Aluminum at 15200 ppb, Arsenic at 87.7 ppb, Barium at 253 ppb, Chromium at 109 ppb, Cobalt at 52.9 ppb, Copper at 114 ppb, Iron at 91900 ppb, Manganese at 1000 ppb and Nickel at 157 ppb.

Sample GW-02(ME1265) was collected from a hand pump in a cemetery to the east of the site. There is no information on this well, but it is likely a shallow hand dug well and is thought to be representative of shallow ground water. The average residential well depth to water is 20 feet. This sample was used as the background sample for both residential wells and ground water samples.

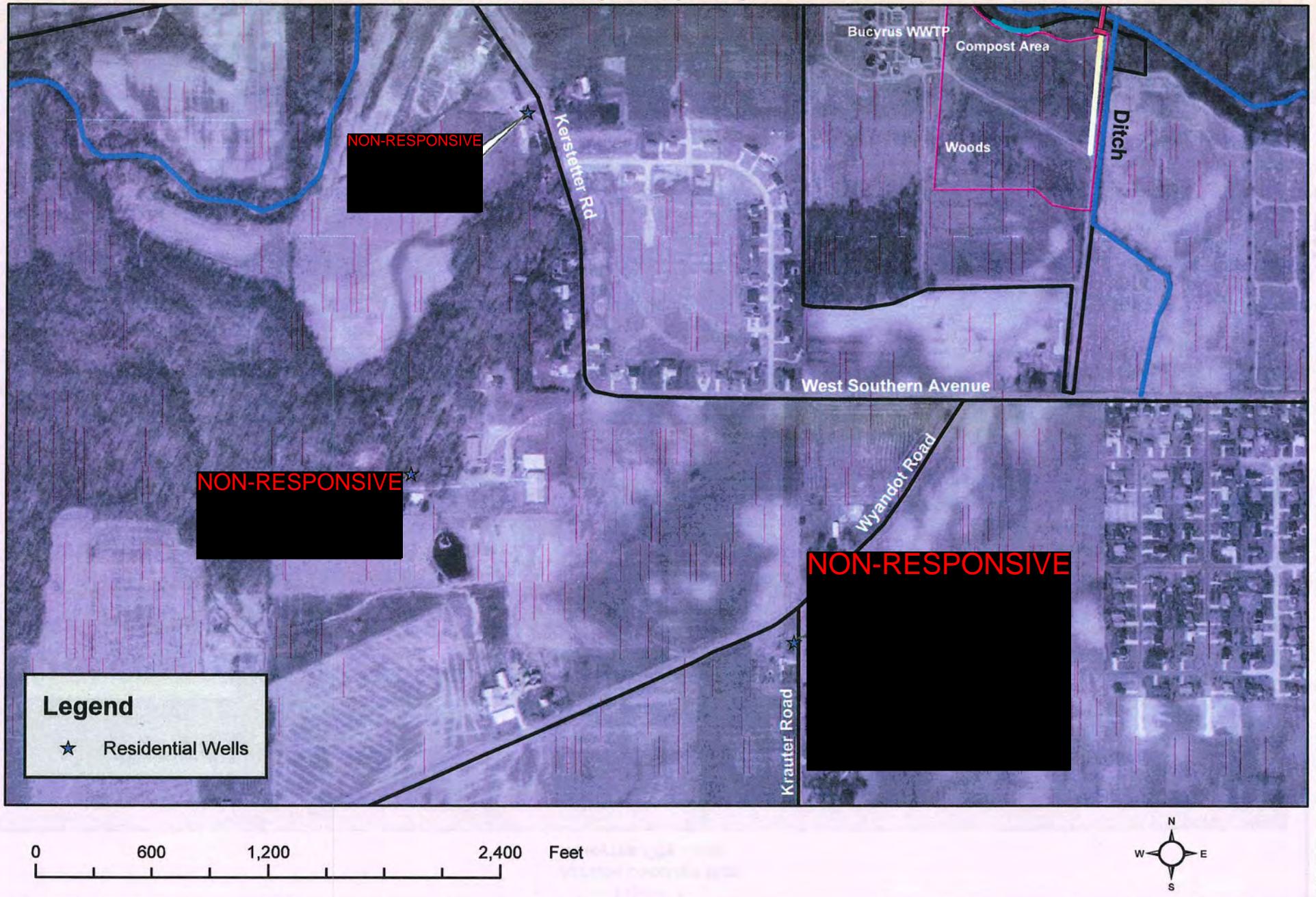
Residential well samples were collected in the directions of regional ground water flow south-southwest of the site along Krauter and Kerstetter Roads (Figure 3a). Results of samples collected showed no significant detections above background or maximum contaminant levels (MCLs).

Figure 3
Sample Location Map
Bucyrus City Dump



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Figure 3a
Residential Well
Sample Location Map
Bucyrus City Dump



**Table 1A: Soil
Bucyrus City Dump
Volatile Organic Compounds
Significant Hits**

Sample Number :	E1269	E1280	E1281	E1282	E1283	E1284	E1285	E1286	E1287	E1288
Sampling Location :	GP-SO-10	GP-SO-01	GP-SO-02	GP-SO-03	SO-04	SO-05	SO-06	SO-07	SO-08	SO-09
Matrix :	Soil									
Units :	ug/Kg									
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/3/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004
Time Sampled :	17:45	15:30	16:24	17:15	15:35	11:45	12:10	12:15	15:55	11:30
Volatile Compound	Result	Flag								
ACETONE	38	J	170	J	97	J	33	UJ	14	UJ
2-BUTANONE	10	J	52		23		9	J	14	U
METHYLCYCLOHEXANE	13	U	12	U	3	J	45		14	U
TOLUENE	13	U	12	UJ	14	U	20		14	U
2-HEXANONE	13	U	9	J	15		45		14	U
XYLEMES (TOTAL)	24		12	U	5	J	17		14	U

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**Table 1B: Soil
Bucyrus City Dump
Semivolatile Organic Compounds
Significant Hits**

Sample Number :	E1269	E1280	E1281	E1282	E1283	E1284	E1285	E1286	E1287	E1288										
Sampling Location :	GP-SO-10	GP-SO-01	GP-SO-02	GP-SO-03	SO-04	SO-05	SO-06	SO-07	SO-08	SO-09										
Matrix :	Soil																			
Units :	ug/Kg																			
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/3/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004										
Time Sampled :	17:45	15:30	16:24	17:15	15:35	11:45	12:10	12:15	15:55	11:30										
Semivolatile Compound	Result	Flag																		
ACENAPHTHENE	390	U	2500	UJ	870	J	580	U	65	J	170	J	450	U	48	J	600	U	440	U
DIBENZOFURAN	390	U	2500	U	450	J	580	U	49	J	130	J	450	U	45	J	600	U	440	U
FLUORENE	390	U	2500	U	1200		78	J	90	J	190	J	450	U	63	J	600	U	440	U
PHENANTHRENE	320	J	930	J	670	J	500	J	950		2300		550		950		320	J	140	J
ANTHRACENE	65	J	580	J	210	J	92	J	180	J	330	J	120	J	200	J	70	J	440	U
FLUORANTHENE	440		430	J	330	J	570	J	1300		3000		810		1600		570	J	160	J
PYRENE	530		1100	J	470	J	730		1600		3400		950		1800		660		190	J
BUTYLBENZYLPHthalATE	390	U	2500	U	1000	U	540	J	83	J	790	U	450	U	420	U	8000		440	U
BENZO(A)ANTHRACENE	220	J	420	J	250	J	300	J	780		1500		470		950		320	J	84	J
CHRYSENE	270	J	830	J	340	J	380	J	930		1800		620		1100		480	J	110	J
BIS(2-ETHYLHEXYL)PHTHALATE	9900		630	J	60000		37000		3600		790	U	780		1000		540	J	440	U
DI-N-OCTYLPHthalATE	390	U	2500	U	1400		550	J	110	J	790	U	450	U	420	U	600	U	440	U
BENZO(B)FLUORANTHENE	200	J	1300	J	200	J	360	J	850		1500		550		1100		490	J	94	J
BENZO(K)FLUORANTHENE	220	J	330	J	180	J	300	J	750		1600		610		840		350	J	120	J
BENZO(A)PYRENE	220	J	1600	J	190	J	340	J	760		1700		500		950		390	J	91	J
INDENO(1,2,3-CD)-PYRENE	130	J	1100	J	120	J	210	J	600		1200		460		750		370	J	70	J
DIBENZO(A,H)-ANTHRACENE	390	U	800	J	1000	U	580	U	290	J	610	J	230	J	380	J	600	U	440	U
BENZO(G,H,I)PERYLENE	170	J	2800		250	J	280	J	740		1400		530		850		510	J	89	J

**Table 1C: Soil
Bucyrus City Dump
Pesticide/PCB Significant Hits**

Sample Number :	E1269	E1280	GP-SO-01	E1281	GP-SO-02	E1282	GP-SO-03	E1283	SO-04	E1284	SO-05	E1285	SO-06	E1285DL	SO-07	E1286	SO-08	E1287	SO-09	E1288	SO-09	
Sampling Location :	GP-SO-10	Soil																				
Matrix :	ug/Kg																					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/3/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004	
Time Sampled :	17:45	15:30	16:24	17:15	15:35	17:15	15:35	11:45	12:10	12:10	12:10	12:10	12:10	12:10	12:10	12:15	15:55	15:55	11:30	11:30	11:30	
Pesticide/PCB Compound	Result	Flag																				
BETA-BHC	4.3		2.1	U	10		3.0	U	2.5	U	2.0	U	2.3	U	23	U	2.2	U	3.1	U	2.3	U
HEPTACHLOR	2.0	U	2.1	UJ	2.6	U	4.0		3.5	J	2.0	U	2.3	U	23	U	2.2	U	3.1	U	2.3	U
HEPTACHLOR EPOXIDE	4.7		2.8		7.3		3.0		12	J	2.0	U	7.6	J	23	U	6.9	J	3.1	U	2.3	U
ENDOSU1FAN 1	2.0	U	2.1	U	2.6	U	3.0	U	2.5	U	2.0	U	2.3	U	23	U	2.2	U	43	J	2.3	U
DIELDRIN	4.0	U	4.1	U	5.1	U	24		4.8	U	4.0	U	4.5	U	45	U	4.3	U	23	J	4.4	U
4,4'-DDE	4.3		14		10		5.7	U	6.8	J	4.0	U	6.7	J	45	U	4.3	U	6.0	U	4.4	U
ENDRIN	4.0	U	4.1	UJ	5.1	U	5.7	U	8.6	J	4.0	U	4.8	J	45	U	6.2	J	6.0	U	4.4	U
4,4'-DDD	34		12		31		27		4.8	U	4.0	U	18	J	45	U	4.3	U	45	J	4.4	U
4,4'-DDT	6.7		4.1	U	8.7		5.7	U	37	J	4.4	J	100	J	150	J	11	J	6.9	J	4.4	U
METHOXYCHLOR	20	U	21	U	26	U	30	U	25	U	20	U	27	J	230	U	35	J	31	U	23	U
ENDRIN KETONE	4.0	U	4.1	U	6.1		5.7	U	5.7	J	6.6	J	12	J	45	U	8.0	J	6.0	U	4.4	U
ENDRIN ALDEHYDE	4.0	U	4.1	U	5.1	U	5.7	U	18	J	6.0	J	28	J	45	U	19	J	6.6	J	4.4	U
ALPHA-CHLORDANE	2.0	U	2.1	U	2.6	U	6.6		2.5	U	4.2	J	2.3	U	23	U	2.2	U	47	J	2.3	U
GAMMA-CHLORDANE	12		2.1	U	27		34		45	J	12	J	30	J	50	J	53	J	42	J	2.3	U
AROCLOL-1254	210		170		1000		260		1700		170		850		1400		1500		180		44	U

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**Table 1D: Soil
Bucyrus City Dump
Significant TAL Metals Detection**

Sample Number :	ME1269	ME1280	GP-SO-01	ME1281	GP-SO-02	ME1282	GP-SO-03	ME1283	SO-04	ME1284	SO-05	ME1285	SO-06	ME1286	SO-07	ME1287	SO-08	ME1288	SO-09		
Sampling Location :	GP-SO-10	Soil	Soil	Soil	Soil	Soil	Soil	Soil	mg/Kg	Soil	mg/Kg	Soil	mg/Kg	Soil	mg/Kg	Soil	mg/Kg	Soil	mg/Kg		
Matrix :	Soil	Units :	mg/Kg	Date Sampled :	6/2/2004	Time Sampled :	17:45	Date Sampled :	6/2/2004	Time Sampled :	15:30	Date Sampled :	6/2/2004	Time Sampled :	16:24	Date Sampled :	6/3/2004	Time Sampled :	17:15	Date Sampled :	6/2/2004
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	
ANTIMONY	56.3		8.8		408		34.3		108		5.2	J	20.4		18.1		17.3		2.9	J	
CADMIUM	1.5		1.9		19.4		3.3		4.9		1.2		4.4		3.6		4.9		1.4		
CALCIUM	24800		30000		37400		33800		16100		55500		25500		72400		74300		4020		
CHROMIUM	21.2	J	24.0	J	54.7	J	16.7	J	38.6	J	19.2	J	52.4	J	35.6	J	20.8	J	14.3	J	
COPPER	157		77.1		158		47.5		97.8		91.8		120		107		81.8		31.8		
MAGNESIUM	9630		7990		7070		8150		4350		14800		8360		8810		35400		1870		
MERCURY	5.2	J+	0.45	J+	15.9	J+	2.3	J+	0.63	J+	1.1	J+	1.4	J+	1.8	J+	5.0	J+	0.39	J+	
NICKEL	29.5		20.5		70.9		20.8		37.2		20.5		33.2		24.2		30.1		14.1		
SILVER	1.1	U	1.2	U	0.61	J	0.46	J	1.7		0.68	J	3.4		2.9		2.0		0.89	J	
SODIUM	635		194	J	728	J	518	J	237	J	106	J	151	J	153	J	191	J	79.3	J	
ZINC	429		1400		4580		202		1720		154		625		437		291		105		
CYANIDE	2.9	U	3.0	U	20.5		0.34	J	0.38	J	2.9	U	3.3	U	0.33	J	0.71	J	0.24	J	

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**Table 2A: Sediment
Bucyrus City Dump
Significant Semi-Volatile Detections**

Sample Number :	E1276	E1277	E1278	E1279	E1329	E1330	E1331
Sampling Location :	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7
Matrix :	Soil						
Units :	ug/Kg						
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004
Time Sampled :	09:05	10:00	10:30	11:00	11:35	11:30	12:40
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result
4-METHYLPHENOL	3200	U	510	U	480	U	340
NAPHTHALENE	440	J	510	U	480	U	87
2-METHYLNAPHTHALENE	390	J	510	U	480	U	110
ACENAPHTHENE	2300	J	89	J	480	U	510
FLUORENE	2800	J	80	J	480	U	400
PHENANTHRENE	5200		630		120	J	2900
ANTHRACENE	4600		160	J	480	U	700
FLUORANTHENE	19000		1000		130	J	4000
PYRENE	45000	J	1300		180	J	5000
BUTYLBENZYLPHthalATE	3200	U	89	J	110	J	120
BENZO(A)ANTHRACENE	12000		430	J	60	J	1800
CHRYSENE	13000		510		110	J	2000
BIS(2-ETHYLHEXYL)PHTHALATE	2800	J	3600		3000		3700
DI-N-OCTYLPHthalATE	3200	U	510	U	480	U	110
BENZO(B)FLUORANTHENE	5700		410	J	81	J	1600
BENZO(K)FLUORANTHENE	7800	J	400	J	72	J	1600
BENZO(A)PYRENE	12000		460	J	76	J	1700
INDENO(1,2,3-CD)-PYRENE	4300		290	J	480	U	990
DIBENZO(A,H)-ANTHRACENE	2100	J	97	J	480	U	500
BENZO(G,H,I)PERYLENE	6500	J	370	J	88	J	1200

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**Table 2B: Sediment
Bucyrus City Dump
Significant Pesticide/PCB Detections**

Sample Number :	E1276		E1277		E1278		E1279		E1329		E1330		E1331	
Sampling Location :	SED-1		SED-2		SED-3		SED-4		SED-5		SED-6		SED-7	
Matrix :	Soil													
Units :	ug/Kg													
Date Sampled :	6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004	
Time Sampled :	09:05		10:00		10:30		11:00		11:35		11:30		12:40	
Pesticide/PCB Compound	Result	Flag												
BETA-BHC	2.7	R	2.6	U	2.5	U	7		3.3	U	4.8		2.6	U
DIELDRIN	6	J	5.1	U	4.9	U	5.5	U	6.4	U	6.1	U	5.1	U
4,4'-DDD	5.3	R	5.1	U	4.9	U	17		6.4	U	6.1	U	5.1	U
ENDRIN ALDEHYDE	5.3	R	5.1	U	4.9	U	9		6.4	U	6.1	U	5.1	U
ALPHA-CHLORDANE	2.7	R	4.7		2.5	U	5.5		3.3	U	3.1	U	2.6	U
GAMMA-CHLORDANE	2.7	R	5.1		2.5	U	10		3.3	U	6.7		2.6	U
AROCLOR-1254	53	R	51	U	64		130		64	U	61	U	51	U

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**Table 2C: Sediment
Bucyrus City Dump
Significant TAL Metals Detections**

Sample Number :	ME1276		ME1277		ME1278		ME1279		ME1329		ME1330		ME1331	
Sampling Location :	SED-1		SED-2		SED-3		SED-4		SED-5		SED-6		SED-7(bkg)	
Matrix :	Soil		Soil											
Units :	mg/Kg		mg/Kg											
Date Sampled :	6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004	
Time Sampled :	09:05		10:00		10:30		11:00		11:35		11:30		12:40	
ANALYTE	Result	Flag	Result	Flag										
CADMIUM	0.34	J	0.55	J	0.49	J	2.9		0.33	J	0.37	J	0.75	U
MERCURY	0.42		0.34		0.47		1.2		0.40		0.33		0.18	

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**Table 3: Ground Water
Bucyrus City Dump
Significant TAL Metals Detections**

Sample Number :	ME1264	ME1265		
Sampling Location :	GW-1	GW-2		
Matrix :	Water	Water		
Units :	ug/L	ug/L		
Date Sampled :	6/2/2004	6/2/2004		
Time Sampled :	12:30	15:10		
ANALYTE	Result	Flag	Result	Flag
ALUMINUM	14500		100	UJ
ARSENIC	87.7		10.0	U
BARIUM	253		28.9	UJ
CHROMIUM	109		16.0	
COBALT	52.9		50.0	U
COPPER	114		13.7	J
IRON	91900		4440	
MANGANESE	1000		79.8	
NICKEL	157		6.6	J

**Table 4: Surface Water
Bucyrus City Dump
Significant TAL Metals Detections**

Sample Number :	ME1289	ME1290	ME1291	ME1292	ME1293	ME1294	ME1295	ME1296								
Sampling Location :	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8								
Matrix :	Water															
Units :	ug/L															
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004								
Time Sampled :	09:05	10:10	10:15	11:45	11:20	12:00	12:15	12:40								
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag								
ALUMINUM	2190	J	282	J	179	J	1410	J	1250	J	321	J	2770	J	267	J
IRON	1940	J	490	J	303	J	1900	J	1710	J	9000	J	4630	J	333	J
LEAD	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	4.3	J	91.2		10.0	U
MAGNESIUM	20100		29800		28700		20100		20200		67000		65600		12800	
MANGANESE	47.9	J	66.2	J	47.5	J	49.3	J	45.1	J	370	J	417	J	8.0	J
MERCURY	0.20	U	0.20	U	0.050	J+	0.20	UJ	0.22	J+	0.21	J+	0.20	UJ	0.090	UJ
POTASSIUM	4770	J	5470	J	5350	J	4240	J	4270	J	35400	J	20000	J	1240	J
SODIUM	17000		25400		24100		16500		16900		41200		81300		23400	
ZINC	8.4	J	3.2	J	2.5	J	8.8	J	7.4	J	1240		132		3.3	J
CYANIDE	10.0	U	10.9		11.2		10.0	U	10.0	U	10.0	U	10.0	U	10.0	U

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5.0 MIGRATION EXPOSURE PATHWAYS

5.1 Soil Exposure Pathway

The Bucyrus City Dump is located in a suburban area in Bucyrus, Ohio. There are residences to the south and west of the site. There is a cemetery to the east of the site. The public has unrestricted access via a public walking trail that leads to the Sandusky River and to a foot bridge that goes over the river to a park on the other side. The back yards of residences to the south are adjacent to the property boundary of the site, but not to the limits of fill (Figure 2).

The City of Bucyrus operates a composting facility on the property. Workers and the public have access to this area. The Bucyrus WWTP is located directly to the west of the dump with workers on-site. There is a chain link fence around the WWTP that is locked after business hours.

The dump is mostly vegetated, but the southern portion has very little cover soils and in some places has none. Also, rodents are prevalent and are exposing waste in numerous areas. Children are likely trespassers due to the trail, park, and lack of restricted access. The dump area is mowed on a regular basis by City employees. Contaminants found in on-site surface soils include PAHs, PCBs and heavy metals above screening values.

5.2 Ground Water Exposure Pathway

The site lies in an area where most residents down gradient of the site are utilizing public water systems. The average static water level depth to ground water for both public and private wells is 20 feet. The available well logs can be found in Appendix C. See Appendix B for a complete data base table and Geographical Information System (GIS) 4-mile radius maps. The total population within a 4-mile radius of the site is 14,921.

In the Bucyrus area, like much of central Crawford County, groundwater use is restricted to the shallow glacial till sediments, instead of the deeper aquifer, which generally produce less than three gallons per minute (ODNR Water Division map). There are approximately 8 residential wells less than ½ mile from the site (ODNR Well Logs).

Shallow ground water appears to be flowing from the east to west in the vicinity of the site. Residential wells were sampled along Krauter and Kerstetter Road.

5.3 Surface Water Exposure Pathway

5.3 Surface Water Exposure Pathway

Both the WWTP and the dump site are located adjacent to each other on the same parcel of land owned by the City of Bucyrus. The dump site is located on the flood plain of the Sandusky River and is immediately east or upstream of the WWTP relative to river flow. The river borders the entire northern boundary of the dump. The potential for release of contaminants via overland migration and flood is high because source areas contain little to no cover soils and approximately 600 feet of the river along the north slope of the site is being affected by erosion and washout. Within this 600 foot segment, waste materials and leachate were observed entering into the river, which floods an average of two times a year primarily during the spring months. Also, portions of the drainage ditch located adjacent to the east side of the dump site contains areas of exposed waste materials from rodents, erosion and washout. These areas have a high potential for release of contaminants to surface water and they are located near the confluence of the Sandusky River and the ditch.

The Sandusky River is designated in the Ohio Water Quality Standards as Warm Water Habitat (WWH). The segment of the river immediately upstream of the Bucyrus WWTP and bordering the northern boundary of the adjacent dump site is in non-attainment for aquatic life habitat. The impact to the river in this segment is severe due to organic loadings from several combined sewer overflows (CSOs) from the City of Bucyrus, which are located both upstream of the site and at the site. The effluent and bypass discharges from the WWTP into the Sandusky River are located downstream (west) of the dump and upstream (east) of Kerstetter Road. This section of the river (downstream of the dump and the WWTP) is in partial attainment of the aquatic life use and impacts are largely attributed to nutrient enrichment from urban and agricultural practices within the watershed, in addition to pollution from point sources such as CSOs and the WWTP. Segments of the Sandusky River upstream of the City of Bucyrus are also in non-attainment status primarily due to agricultural practices. The Sandusky River is also designated as primary contact for recreation use in the City of Bucyrus area.

Historical sediment sampling events in the Sandusky River in the vicinity of the dump site and the Bucyrus WWTP have shown elevated levels of heavy metals, PCBs and PAHs. The General Electric Lamp facility was identified as a major source of elevated mercury due to documented discharges of this contaminant to the sanitary sewer system. This collection system is comprised of 60 percent combined sewers with 16 combined sewer overflows that discharge directly to the river during major storm events. Metals including mercury were also found in surface soils at the dump site during this investigation and are likely contributing to sediment contamination in the river. PAH contaminants and PCBs have been attributed to CSO discharges. PAH contaminants were found in soils at the dump site and are likely contributing to sediment concentrations in the river. PAHs are the byproducts of fossil fuel combustion and are contained in coal tar and creosote. The City of Bucyrus contains numerous rail yards and track that are sources of PAH contaminants to storm water. PCBs were detected in soils at the dump site and were also observed in the river.

sediments. Pesticides were detected in the dump site and in river sediments. It is likely that both the dump and agricultural practices have contributed to these contaminants in river sediments. The Ohio Department of Health has historically advised that fish consumption be limited due to mercury and PCB levels in river sediment. This is especially a concern due to the popularity of sport fishing in the area (Biological and Water Quality Study of the Sandusky River and Selected Tributaries, Technical Report EAS/1991-6-2). Please refer to Appendix F for the Sandusky-Bucyrus Assessment Unit, Pages 35-51 of the Biological and Water Quality Study. Locations of industry and other potential upstream sources of contaminants in river sediments are displayed in Figure 1A.

Sensitive environments were identified as potential targets in the surface water pathway. Species which are located within the 15-mile target distance limit (TDL) are either state endangered or state and federally threatened. Please refer to Appendix B for a list of the species and their distance from the site.

Many of the residences are using public surface water sources for drinking water (City of Bucyrus WTP), only a few of the residences surrounding the site are still on private ground water wells.

5.4 Air Exposure Pathway

A comprehensive air sampling program was not implemented at the site during the PA/SI. However, portable air monitoring was conducted during soil sampling and did not detect anything above background. There are portions of the dump that are currently not covered with limited vegetation. The estimated population within a 4-mile radius of the facility is 14,921.

6.0 REFERENCES

1. Biological and Water Quality Study of the Sandusky River and Selected Tributaries 2001 - Seneca, Wyandot, and Crawford Counties, Ohio; May 21, 2003.
2. United States Environmental Protection Agency. Hazard Ranking System Guidance Manual. Publication 9345.1-07. PB92-963377. EPA 540-R-92-026. November 2002.
3. Ohio Environmental Protection Agency (Ohio EPA), Northwest District Office files.
4. Ohio EPA; Data; Geographical Information Systems.
5. Ohio Department of Transportation, Dept. Of Aerial Engineering, Historical Aerial Photographs; 1956-1988.
6. Quality Assurance Project Plan (QAPP), for Region V Superfund SI activities for Ohio EPA, and the Ohio EPA Field Standard Operating Procedures.

APPENDIX A

COMPLETE ANALYTICAL RESULTS

Analytical Results (Qualified Data)

Page 1 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Number of Soil Samples : 10

Date :

Number of Water Samples : 0

Sample Number :	E1269	E1280	E1280MS	E1280MSD	E1281					
Sampling Location :	GP-SO-10	GP-SO-01	GP-SO-01	GP-SO-01	GP-SO-02					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	17:45	15:30	15:30	15:30	16:24					
%Moisture :	25	18	18	18	27					
pH :	7.0	7.0	7.0	7.0	7.0					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	13	U	12	U	13	U	13	U	14	U
CHLOROMETHANE	13	U	12	U	13	U	13	U	14	U
VINYL CHLORIDE	13	U	12	U	13	U	13	U	14	U
BROMOMETHANE	13	U	12	U	13	U	13	U	14	U
CHLOROETHANE	13	U	12	U	13	U	13	U	14	U
TRICHLORODIFLUOROMETHANE	13	U	12	U	13	U	13	U	14	U
1,1-DICHLOROETHENE	13	U	12	UJ	34		32		14	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	13	U	12	U	13	U	13	U	14	U
ACETONE	38	J	170	J	140	J	200	J	97	J
CARBON DISULFIDE	13	U	12	U	1	J	1	J	2	J
METHYL ACETATE	13	U	12	U	13	U	2	J	14	U
METHYLENE CHLORIDE	19	UJ	21	UJ	21	UJ	23	UJ	19	UJ
TRANS-1,2-DICHLOROETHENE	13	U	12	U	13	U	13	U	14	U
METHYL TERT-BUTYL ETHER	13	U	12	U	13	U	13	U	14	U
1,1-DICHLOROETHANE	13	U	12	U	13	U	13	U	14	U
CIS-1,2-DICHLOROETHENE	13	U	12	U	13	U	13	U	14	U
2-BUTANONE	10	J	52		42		70		23	
CHLOROFORM	13	U	12	U	13	U	13	U	14	U
1,1,1-TRICHLOROETHANE	13	U	12	U	13	U	13	U	14	U
CYCLOHEXANE	13	U	12	U	13	U	13	U	14	U
CARBON TETRACHLORIDE	13	U	12	U	13	U	13	U	14	U
BENZENE	13	U	12	UJ	36		35		14	U
1,2-DICHLOROETHANE	13	U	12	U	13	U	13	U	14	U
TRICHLOROETHENE	13	U	12	UJ	26		25		14	U
METHYLCYCLOHEXANE	13	U	12	U	2	J	13	U	3	J
1,2-DICHLOROPROPANE	13	U	12	U	13	U	13	U	14	U
BROMODICHLOROMETHANE	13	U	12	U	13	U	13	U	14	U
CIS-1,3-DICHLOROPROPENE	13	UJ	12	UJ	13	UJ	13	UJ	14	UJ
4-METHYL-2-PENTANONE	13	U	12	U	13	U	13	U	14	U
TOLUENE	13	U	12	UJ	26		26		14	U
TRANS-1,3-DICHLOROPROPENE	13	UJ	12	UJ	13	UJ	13	UJ	14	UJ
1,1,2-TRICHLOROETHANE	13	U	12	U	13	U	13	U	14	U
TETRACHLOROETHENE	2	J	2	J	2	J	1	J	2	J

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Analytical Results (Qualified Data)

Page 2 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1269	E1280	E1280MS	E1280MSD	E1281					
Sampling Location :	GP-SO-10	GP-SO-01	GP-SO-01	GP-SO-01	GP-SO-02					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	17:45	15:30	15:30	15:30	16:24					
%Moisture :	25	18	18	18	27					
pH :	7.0	7.0	7.0	7.0	7.0					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	13	U	9	J	13	U	13	U	15	
DIBROMOCHLOROMETHANE	13	U	12	U	13	U	13	U	14	U
1,2-DIBROMOETHANE	13	U	12	U	13	U	13	U	14	U
CHLOROBENZENE	2	J	1	J	22		21		2	J
ETHYLBENZENE	3	J	12	U	13	U	13	U	14	U
XYLENES (TOTAL)	24		12	U	13	U	13	U	5	J
STYRENE	13	U	12	U	13	U	13	U	14	U
BROMOFORM	13	U	12	U	13	U	13	U	14	U
ISOPROPYLBENZENE	2	J	12	U	13	U	13	U	5	J
1,1,2,2-TETRACHLOROETHANE	13	U	7	J	13	U	13	U	14	U
1,3-DICHLOROBENZENE	13	U	12	U	13	U	13	U	14	U
1,4-DICHLOROBENZENE	5	J	4	J	5	J	3	J	5	J
1,2-DICHLOROBENZENE	4	J	3	J	5	J	3	J	4	J
1,2-DIBROMO-3-CHLOROPROPANE	13	R	12	R	13	R	13	R	14	R
1,2,4-TRICHLOROBENZENE	1	J	12	U	2	J	13	U	14	U

Analytical Results (Qualified Data)

Page 3 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1282	E1283	E1284	E1285	E1286			
Sampling Location :	GP-SO-03	SO-04	SO-05	SO-06	SO-07			
Matrix :	Soil	Soil	Soil	Soil	Soil			
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			
Date Sampled :	6/2/2004	6/3/2004	6/2/2004	6/2/2004	6/2/2004			
Time Sampled :	17:15	15:35	11:45	12:10	12:15			
%Moisture :	22	30	18	26	29			
pH :	7.0	7.0	7.0	7.0	7.0			
Dilution Factor :	1.0	1.0	1.0	1.0	1.0			
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	13	U	14	U	13	U	14	U
CHLOROMETHANE	13	U	14	U	13	U	14	U
VINYL CHLORIDE	2	J	14	U	13	U	14	U
BROMOMETHANE	13	U	14	U	13	U	14	U
CHLOROETHANE	13	U	14	U	13	U	14	U
TRICHLORODIFLUOROMETHANE	13	U	14	U	13	U	14	U
1,1-DICHLOROETHENE	13	U	14	U	13	U	14	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	13	U	14	U	13	U	14	U
ACETONE	33	J	14	UJ	13	UJ	14	UJ
CARBON DISULFIDE	3	J	14	U	13	U	14	U
METHYL ACETATE	13	U	14	U	13	U	14	U
METHYLENE CHLORIDE	20	UJ	14	UJ	13	UJ	14	UJ
TRANS-1,2-DICHLOROETHENE	13	U	14	U	13	U	14	U
METHYL TERT-BUTYL ETHER	13	U	14	U	13	U	14	U
1,1-DICHLOROETHANE	13	U	14	U	13	U	14	U
CIS-1,2-DICHLOROETHENE	13	U	14	U	13	U	14	U
2-BUTANONE	9	J	14	U	13	U	14	U
CHLOROFORM	13	U	14	U	13	U	14	U
1,1,1-TRICHLOROETHANE	13	U	14	U	13	U	14	U
CYCLOHEXANE	8	J	14	U	13	U	14	U
CARBON TETRACHLORIDE	13	U	14	U	13	U	14	U
BENZENE	3	J	14	U	13	U	14	U
1,2-DICHLOROETHANE	13	U	14	U	13	U	14	U
TRICHLOROETHENE	13	U	14	U	13	U	14	U
METHYLCYCLOHEXANE	45		14	U	13	U	14	U
1,2-DICHLOROPROPANE	13	U	14	U	13	U	14	U
BROMODICHLOROMETHANE	13	U	14	U	13	U	14	U
CIS-1,3-DICHLOROPROPENE	13	UJ	14	UJ	13	UJ	14	UJ
4-METHYL-2-PENTANONE	13	U	14	U	13	U	14	U
TOLUENE	20		14	U	13	U	14	U
TRANS-1,3-DICHLOROPROPENE	13	UJ	14	UJ	13	UJ	14	UJ
1,1,2-TRICHLOROETHANE	13	U	14	U	13	U	14	U
TETRACHLOROETHENE	13	U	14	U	13	U	14	U

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Analytical Results (Qualified Data)

Page 4 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1282	E1283	E1284	E1285	E1286					
Sampling Location :	GP-SO-03	SO-04	SO-05	SO-06	SO-07					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/3/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	17:15	15:35	11:45	12:10	12:15					
%Moisture :	22	30	18	26	29					
pH :	7.0	7.0	7.0	7.0	7.0					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	45		14	U	13	U	14	U	15	U
DIBROMOCHLOROMETHANE	13	U	14	U	13	U	14	U	15	U
1,2-DIBROMOETHANE	13	U	14	U	13	U	14	U	15	U
CHLOROBENZENE	13	U	14	U	13	U	14	U	15	U
ETHYLBENZENE	7	J	14	U	13	U	14	U	15	U
XYLENES (TOTAL)	17		14	U	13	U	14	U	15	U
STYRENE	13	U	14	U	13	U	14	U	15	U
BROMOFORM	13	U	14	U	13	U	14	U	15	U
ISOPROPYLBENZENE	3	J	14	U	13	U	14	U	15	U
1,1,2,2-TETRACHLOROETHANE	13	U	14	U	13	U	14	U	15	U
1,3-DICHLOROBENZENE	13	U	14	U	13	U	14	U	15	U
1,4-DICHLOROBENZENE	3	J	3	J	2	J	3	J	3	J
1,2-DICHLOROBENZENE	4	J	2	J	2	J	2	J	2	J
1,2-DIBROMO-3-CHLOROPROPANE	13	R	14	R	13	R	14	R	15	R
1,2,4-TRICHLOROBENZENE	13	U	14	U	13	U	14	U	15	U

Analytical Results (Qualified Data)

Page 5 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1287	E1288	VBLKOJ	VBLKOL	VHBLK01			
Sampling Location :	SO-08	SO-09	Soil ug/Kg	Soil ug/Kg	Soil ug/Kg			
Matrix :	Soil	Soil						
Units :	ug/Kg	ug/Kg						
Date Sampled :	6/2/2004	6/2/2004						
Time Sampled :	15:55	11:30						
%Moisture :	35	30	N/A	N/A	0			
pH :	7.0	7.0			7.0			
Dilution Factor :	1.0	1.0	1.0	1.0	1.0			
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	15	U	14	U	10	U	10	U
CHLOROMETHANE	15	U	14	U	10	U	10	U
VINYL CHLORIDE	15	U	14	U	10	U	10	U
BROMOMETHANE	15	U	14	U	10	U	10	U
CHLOROETHANE	15	U	14	U	10	U	10	U
TRICHLOROFUOROMETHANE	15	U	14	U	10	U	10	U
1,1-DICHLOROETHENE	15	U	14	U	10	U	10	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	15	U	14	U	10	U	10	U
ACETONE	15	UJ	14	UJ	10	UJ	3	J
CARBON DISULFIDE	15	U	14	U	10	U	10	U
METHYL ACETATE	15	U	14	U	10	U	10	U
METHYLENE CHLORIDE	19	UJ	14	UJ	3	J	6	J
TRANS-1,2-DICHLOROETHENE	15	U	14	U	10	U	10	U
METHYL TERT-BUTYL ETHER	15	U	14	U	10	U	10	U
1,1-DICHLOROETHANE	15	U	14	U	10	U	10	U
CIS-1,2-DICHLOROETHENE	15	U	14	U	10	U	10	U
2-BUTANONE	15	U	14	U	10	U	10	U
CHLOROFORM	15	U	14	U	10	U	10	U
1,1,1-TRICHLOROETHANE	15	U	14	U	10	U	10	U
CYCLOHEXANE	15	U	14	U	10	U	10	U
CARBON TETRACHLORIDE	15	U	14	U	10	U	10	U
BENZENE	15	U	14	U	10	U	10	U
1,2-DICHLOROETHANE	15	U	14	U	10	U	10	U
TRICHLOROETHENE	15	U	14	U	10	U	10	U
METHYLCYCLOHEXANE	15	U	14	U	10	U	10	U
1,2-DICHLOROPROPANE	15	U	14	U	10	U	10	U
BROMODICHLOROMETHANE	15	U	14	U	10	U	10	U
CIS-1,3-DICHLOROPROPENE	15	UJ	14	UJ	10	UJ	10	U
4-METHYL-2-PENTANONE	15	U	14	U	10	U	10	U
TOLUENE	15	U	14	U	10	U	10	U
TRANS-1,3-DICHLOROPROPENE	15	UJ	14	UJ	10	UJ	10	U
1,1,2-TRICHLOROETHANE	15	U	14	U	10	U	10	U
TETRACHLOROETHENE	2	J	14	U	10	U	10	U

DISCLAIMER: This package has been electronically assessed as an added service to our customer. It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

Analytical Results (Qualified Data)

Page 6 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1287	Sampling Location :	SO-08	E1288	SO-09	VBLKOJ		VBLKOL		VHBLK01
Matrix :	Soil	Units :	ug/Kg	Soil	ug/Kg	Soil		Soil		Soil
Date Sampled :	6/2/2004	Time Sampled :	15:55	6/2/2004	11:30	N/A		N/A		ug/Kg
%Moisture :	35	pH :	7.0	30					0	7.0
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	1.0
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	15	U	14	U	10	U	10	U	10	U
DIBROMOCHLOROMETHANE	15	U	14	U	10	U	10	U	10	U
1,2-DIBROMOETHANE	15	U	14	U	10	U	10	U	10	U
CHLOROBENZENE	15	U	14	U	10	U	10	U	10	U
ETHYLBENZENE	15	U	14	U	10	U	10	U	10	U
XYLENES (TOTAL)	15	U	14	U	10	U	10	U	10	U
STYRENE	15	U	14	U	10	U	10	U	10	U
BROMOFORM	15	U	14	U	10	U	10	U	10	U
ISOPROPYLBENZENE	15	U	14	U	10	U	10	U	10	U
1,1,2,2-TETRACHLOROETHANE	15	U	14	U	10	U	10	U	10	U
1,3-DICHLOROBENZENE	15	U	14	U	10	U	10	U	10	U
1,4-DICHLOROBENZENE	4	J	2	J	10	U	10	U	10	U
1,2-DICHLOROBENZENE	3	J	2	J	10	U	10	U	10	U
1,2-DIBROMO-3-CHLOROPROPANE	15	R	14	R	10	R	10	R	10	R
1,2,4-TRICHLOROBENZENE	15	U	14	U	10	U	10	U	10	U

Analytical Results (Qualified Data)

Page 7 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Number of Soil Samples : 10

Number of Water Samples : 0

Sample Number :	E1269	E1269DL	E1280	E1280MS	E1280MSD					
Sampling Location :	GP-SO-10	GP-SO-10	GP-SO-01	GP-SO-01	GP-SO-01					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	17:45	17:45	15:30	15:30	15:30					
%Moisture :	17	17	20	20	20					
pH :	7.8	7.8	7.8	7.8	7.8					
Dilution Factor :	1.0	4.0	6.0	6.0	6.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	390	UJ	1600	UJ	2500	UJ	2500	UJ	2500	UJ
PHENOL	390	U	1600	U	2500	U	2200	J	2000	J
BIS-(2-CHLOROETHYL)ETHER	390	U	1600	U	2500	U	2500	U	2500	U
2-CHLOROPHENOL	390	U	1600	U	2500	U	1700	J	1800	J
2-METHYLPHENOL	390	U	1600	U	2500	U	2500	U	2500	U
2,2'-OXYBIS(1-CHLOROPROPANE)	390	U	1600	U	2500	U	2500	U	2500	U
ACETOPHENONE	390	U	1600	U	2500	U	2500	U	2500	U
4-METHYLPHENOL	390	U	1600	U	2500	U	2500	U	2500	U
N-NITROSO-DI-N PROPYLAMINE	390	U	1600	U	2500	U	1000	J	1200	J
HEXACHLOROETHANE	390	U	1600	U	2500	U	2500	U	2500	U
NITROBENZENE	390	U	1600	U	2500	U	2500	U	2500	U
ISOPHORONE	390	U	1600	U	2500	U	2500	U	2500	U
2-NITROPHENOL	390	U	1600	U	2500	U	2500	U	2500	U
2,4-DIMETHYLPHENOL	390	U	1600	U	2500	U	2500	U	2500	U
BIS(2-CHLOROETHOXY)METHANE	390	U	1600	U	2500	U	2500	U	2500	U
2,4-DICHLOROPHENOL	390	U	1600	U	2500	U	2500	U	2500	U
NAPHTHALENE	54	J	1600	U	2500	U	2500	U	2500	U
4-CHLOROANILINE	390	U	1600	U	2500	U	2500	U	2500	U
HEXACHLOROBUTADIENE	390	U	1600	U	2500	U	2500	U	2500	U
CAPROLACTAM	390	U	1600	U	2500	U	2500	U	2500	U
4-CHLORO-3-METHYLPHENOL	390	U	1600	U	2500	U	2900	J	2300	J
2-METHYLNAPHTHALENE	69	J	1600	U	2500	U	2500	U	2500	U
HEXACHLOROCYCLO-PENTADIEN	390	U	1600	U	2500	U	2500	U	2500	U
2,4,6-TRICHLOROPHENOL	390	U	1600	U	2500	U	2500	U	2500	U
2,4,5-TRICHLOROPHENOL	990	U	4000	U	6200	U	6200	U	6200	U
1,1-BIPHENYL	390	U	1600	U	2500	U	2500	U	2500	U
2-CHLORONAPHTHALENE	390	U	1600	U	2500	U	2500	U	2500	U
2-NITROANILINE	990	U	4000	U	6200	U	6200	U	6200	U
DIMETHYLPHTHALATE	390	U	1600	U	2500	U	2500	U	2500	U
2,6-DINITROTOLUENE	390	U	1600	U	2500	U	2500	U	2500	U
ACENAPHTHYLENE	390	U	1600	U	2500	U	2500	U	2500	U
3-NITROANILINE	990	U	4000	U	6200	U	6200	U	6200	U
ACENAPHTHENE	390	U	1600	U	2500	UJ	1800	J	1400	J

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Analytical Results (Qualified Data)

Page 8 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1269	E1269DL	E1280	E1280MS	E1280MSD					
Sampling Location :	GP-SO-10	GP-SO-10	GP-SO-01	GP-SO-01	GP-SO-01					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	17:45	17:45	15:30	15:30	15:30					
%Moisture :	17	17	20	20	20					
pH :	7.8	7.8	7.8	7.8	7.8					
Dilution Factor :	1.0	4.0	6.0	6.0	6.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	990	U	4000	U	6200	U	6200	U	6200	U
4-NITROPHENOL	990	U	4000	U	6200	U	2800	J	2100	J
DIBENZOFURAN	390	U	1600	U	2500	U	2500	U	2500	U
2,4-DINITROTOLUENE	390	U	1600	U	2500	U	1700	J	1300	J
DIETHYLPHTHALATE	390	U	1600	U	2500	U	2500	U	2500	U
FLUORENE	390	U	1600	U	2500	U	2500	U	2500	U
4-CHLOROPHENYL-PHENYL ETHER	390	U	1600	U	2500	U	2500	U	2500	U
4-NITROANILINE	990	U	4000	U	6200	U	6200	U	6200	U
4,6-DINITRO-2-METHYLPHENOL	990	U	4000	U	6200	U	6200	U	6200	U
N-NITROSO DIPHENYLAMINE	390	U	1600	U	2500	U	2500	U	2500	U
4-BROMOPHENYL-PHENYLETHER	390	U	1600	U	2500	U	2500	U	2500	U
HEXACHLOROBENZENE	390	U	1600	U	2500	U	2500	U	2500	U
ATRAZINE	390	UJ	1600	UJ	2500	UJ	2500	UJ	2500	UJ
PENTACHLOROPHENOL	990	U	4000	U	6200	U	6200	U	6200	U
PHENANTHRENE	320	J	220	J	930	J	430	J	600	J
ANTHRACENE	65	J	1600	U	580	J	2500	U	490	J
CARBAZOLE	390	U	1600	U	2500	U	2500	U	2500	U
DI-N-BUTYLPHthalate	390	U	1600	U	2500	U	2500	U	2500	U
FLUORANTHENE	440		320	J	430	J	330	J	360	J
PYRENE	530		340	J	1100	J	2900		2700	
BUTYLBENZYLPHthalate	390	U	1600	U	2500	U	2500	U	2500	U
3,3'-DICHLOROBENZIDINE	390	U	1600	U	2500	U	2500	U	2500	U
BENZO(A)ANTHRACENE	220	J	1600	U	420	J	270	J	300	J
CHRYSENE	270	J	180	J	830	J	510	J	590	J
BIS(2-ETHYLHEXYL)PHTHALATE	9900		6700		630	J	1700	J	2100	J
DI-N-OCTYLPHthalate	390	U	1600	U	2500	U	2500	U	430	J
BENZO(B)FLUORANTHENE	200	J	1600	U	1300	J	2500	U	920	J
BENZO(K)FLUORANTHENE	220	J	1600	U	330	J	2500	U	2500	U
BENZO(A)PYRENE	220	J	1600	U	1600	J	2500	U	1900	J
INDENO(1,2,3-CD)-PYRENE	130	J	1600	U	1100	J	2500	U	940	J
DI BENZO(A,H)-ANTHRACENE	390	U	1600	U	800	J	2500	U	2500	U
BENZO(G,H,I)PERYLENE	170	J	1600	U	2800		640	J	2500	

Analytical Results (Qualified Data)

Page 9 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer:

Date :

Sample Number :	E1281	E1281DL	E1282	E1282DL	E1283					
Sampling Location :	GP-SO-02	GP-SO-02	GP-SO-03	GP-SO-03	SO-04					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/3/2004					
Time Sampled :	16:24	16:24	17:15	17:15	15:35					
%Moisture :	36	36	43	43	32					
pH :	8.1	8.1	8.3	8.3	6.6					
Dilution Factor :	2.0	30.0	1.0	20.0	1.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	260	J	15000	UJ	160	J	12000	UJ	74	J
PHENOL	1000	U	15000	U	81	J	12000	U	480	U
BIS-(2-CHLOROETHYL)ETHER	1000	U	15000	U	580	U	12000	U	480	U
2-CHLOROPHENOL	1000	U	15000	U	580	U	12000	U	480	U
2-METHYLPHENOL	1000	U	15000	U	230	J	12000	U	480	U
2,2'-OXYBIS(1-CHLOROPROPANE)	1000	U	15000	U	580	U	12000	U	480	U
ACETOPHENONE	1000	U	15000	U	66	J	12000	U	480	U
4-METHYLPHENOL	1000	U	15000	U	220	J	12000	U	480	U
N-NITROSO-DI-N PROPYLAMINE	1000	U	15000	U	580	U	12000	U	480	U
HEXACHLOROETHANE	1000	U	15000	U	580	U	12000	U	480	U
NITROBENZENE	1000	U	15000	U	580	U	12000	U	480	U
ISOPHORONE	1000	U	15000	U	580	U	12000	U	480	U
2-NITROPHENOL	1000	U	15000	U	580	U	12000	U	480	U
2,4-DIMETHYLPHENOL	1000	U	15000	U	130	J	12000	U	480	U
BIS(2-CHLOROETHOXY)METHANE	1000	U	15000	U	580	U	12000	U	480	U
2,4-DICHLOROPHENOL	1000	U	15000	U	580	U	12000	U	480	U
NAPHTHALENE	190	J	15000	U	130	J	12000	U	480	U
4-CHLOROANILINE	1000	U	15000	U	580	U	12000	U	480	U
HEXACHLOROBUTADIENE	1000	U	15000	U	580	U	12000	U	480	U
CAPROLACTAM	1000	U	15000	U	580	U	12000	U	480	U
4-CHLORO-3-METHYLPHENOL	1000	U	15000	U	580	U	12000	U	480	U
2-METHYLNAPHTHALENE	260	J	15000	U	140	J	12000	U	480	U
HEXACHLOROCYCLO-PENTADIEN	1000	U	15000	U	580	U	12000	U	480	U
2,4,6-TRICHLOROPHENOL	1000	U	15000	U	580	U	12000	U	480	U
2,4,5-TRICHLOROPHENOL	2600	U	39000	U	1400	U	29000	U	1200	U
1,1'-BIPHENYL	1000	U	15000	U	580	U	12000	U	480	U
2-CHLORONAPHTHALENE	1000	U	15000	U	580	U	12000	U	480	U
2-NITROANILINE	2600	U	39000	U	1400	U	29000	U	1200	U
DIMETHYLPHthalATE	1000	U	15000	U	580	U	12000	U	480	U
2,6-DINITROTOLUENE	1000	U	15000	U	580	U	12000	U	480	U
ACENAPHTHYLENE	1000	U	15000	U	580	U	12000	U	480	U
3-NITROANILINE	2600	U	39000	U	1400	U	29000	U	1200	U
ACENAPHTHENE	870	J	15000	U	580	U	12000	U	65	J

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Analytical Results (Qualified Data)

Page 10 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1281	E1281DL	E1282	E1282DL	E1283					
Sampling Location :	GP-SO-02	GP-SO-02	GP-SO-03	GP-SO-03	SO-04					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/3/2004					
Time Sampled :	16:24	16:24	17:15	17:15	15:35					
%Moisture :	36	36	43	43	32					
pH :	8.1	8.1	8.3	8.3	6.6					
Dilution Factor :	2.0	30.0	1.0	20.0	1.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	2600	U	39000	U	1400	U	29000	U	1200	U
4-NITROPHENOL	2600	U	39000	U	1400	U	29000	U	1200	U
DIBENZOFURAN	450	J	15000	U	580	U	12000	U	49	J
2,4-DINITROTOLUENE	1000	U	15000	U	580	U	12000	U	480	U
DIETHYLPHthalATE	1000	U	15000	U	580	U	12000	U	480	U
FLUORENE	1200		15000	U	78	J	12000	U	90	J
4-CHLOROPHENYL-PHENYLETHER	1000	U	15000	U	580	U	12000	U	480	U
4-NITROANILINE	2600	U	39000	U	1400	U	29000	U	1200	U
4,6-DINITRO-2-METHYLPHENOL	2600	U	39000	U	1400	U	29000	U	1200	U
N-NITROSO DIPHENYLAMINE	1000	U	15000	U	580	U	12000	U	480	U
4-BROMOPHENYL-PHENYLETHER	1000	U	15000	U	580	U	12000	U	480	U
HEXACHLOROBENZENE	1000	U	15000	U	580	U	12000	U	480	U
ATRAZINE	1000	UJ	15000	UJ	580	UJ	12000	UJ	480	UJ
PENTACHLOROPHENOL	2600	U	39000	U	1400	U	29000	U	1200	U
PHENANTHRENE	670	J	15000	U	500	J	12000	U	950	
ANTHRACENE	210	J	15000	U	92	J	12000	U	180	J
CARBAZOLE	170	J	15000	U	580	U	12000	U	120	J
DI-N-BUTYLPHthalATE	1000	U	15000	U	270	J	12000	U	480	U
FLUORANTHENE	330	J	15000	U	570	J	12000	U	1300	
PYRENE	470	J	15000	U	730		12000	U	1600	
BUTYLBENZYLPHthalATE	1000	U	15000	U	540	J	12000	U	83	J
3,3'-DICHLOROBENZIDINE	1000	U	15000	U	580	U	12000	U	480	U
BENZO(A)ANTHRACENE	250	J	15000	U	300	J	12000	U	780	
CHRYSENE	340	J	15000	U	380	J	12000	U	930	
BIS(2-ETHYLHEXYL)PHthalATE	60000		52000		37000		35000		3600	
DI-N-OCTYLPHthalATE	1400		15000	U	550	J	12000	U	110	J
BENZO(B)FLUORANTHENE	200	J	15000	U	360	J	12000	U	850	
BENZO(K)FLUORANTHENE	180	J	15000	U	300	J	12000	U	750	
BENZO(A)PYRENE	190	J	15000	U	340	J	12000	U	760	
INDENO(1,2,3-CD)PYRENE	120	J	15000	U	210	J	12000	U	600	
DIBENZO(A,H)ANTHRACENE	1000	U	15000	U	580	U	12000	U	290	J
BENZO(G,H,I)PERYLENE	250	J	15000	UJ	280	J	12000	UJ	740	

Analytical Results (Qualified Data)

Page 11 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1284	E1285	E1286	E1287	E1287DL			
Sampling Location :	SO-05	SO-06	SO-07	SO-08	SO-08			
Matrix :	Soil	Soil	Soil	Soil	Soil			
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004			
Time Sampled :	11:45	12:10	12:15	15:55	15:55			
%Moisture :	18	27	23	46	46			
pH :	7.8	7.2	7.3	7.0	7.0			
Dilution Factor :	2.0	1.0	1.0	1.0	6.0			
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	790	UJ	160	J	200	J	270	J
PHENOL	790	U	450	U	420	U	600	U
BIS-(2-CHLOROETHYL)ETHER	790	U	450	U	420	U	600	U
2-CHLOROPHENOL	790	U	450	U	420	U	600	U
2-METHYLPHENOL	790	U	450	U	420	U	600	U
2,2'-OXYBIS(1- CHLOROPROPANE)	790	U	450	U	420	U	600	U
ACETOPHENONE	790	U	450	U	420	U	600	U
4-METHYLPHENOL	790	U	450	U	420	U	600	U
N-NITROSO-DI-N PROPYLAMINE	790	U	450	U	420	U	680	U
HEXACHLOROETHANE	790	U	450	U	420	U	600	U
NITROBENZENE	790	U	450	U	420	U	600	U
ISOPHORONE	790	U	450	U	420	U	600	U
2-NITROPHENOL	790	U	450	U	420	U	600	U
2,4-DIMETHYLPHENOL	790	U	450	U	420	U	600	U
BIS(2-CHLOROETHOXY)METHANE	790	U	450	U	420	U	600	U
2,4-DICHLOROPHENOL	790	U	450	U	420	U	600	U
NAPHTHALENE	87	J	450	U	49	J	600	U
4-CHLOROANILINE	790	U	450	U	420	U	600	U
HEXACHLOROBUTADIENE	790	U	450	U	420	U	600	U
CAPROLACTAM	790	U	450	U	420	U	600	U
4-CHLORO-3-METHYLPHENOL	790	U	450	U	420	U	600	U
2-METHYLNAPHTHALENE	97	J	450	U	65	J	600	U
HEXACHLOROCYCLO-PENTADIEN	790	U	450	U	420	U	600	U
2,4,6-TRICHLOROPHENOL	790	U	450	U	420	U	600	U
2,4,5-TRICHLOROPHENOL	2000	U	1100	U	1100	U	1500	U
1,1'-BIPHENYL	790	U	450	U	420	U	600	U
2-CHLORONAPHTHALENE	790	U	450	U	420	U	600	U
2-NITROANILINE	2000	U	1100	U	1100	U	1500	U
DIMETHYLPHthalATE	790	U	450	U	420	U	600	U
2,6-DINITROTOLUENE	790	U	450	U	420	U	600	U
ACENAPHTHYLENE	790	U	450	U	420	U	600	U
3-NITROANILINE	2000	U	1100	U	1100	U	1500	U
ACENAPHTHENE	170	J	450	U	48	J	600	U

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Analytical Results (Qualified Data)

Page 12 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1284	E1285	E1286	E1287	E1287DL					
Sampling Location :	SO-05	SO-06	SO-07	SO-08	SO-08					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	11:45	12:10	12:15	15:55	15:55					
%Moisture :	18	27	23	46	46					
pH :	7.8	7.2	7.3	7.0	7.0					
Dilution Factor :	2.0	1.0	1.0	1.0	6.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	2000	U	1100	U	1100	U	1500	U	9100	U
4-NITROPHENOL	2000	U	1100	U	1100	U	1500	U	9100	U
DIBENZOFURAN	130	J	450	U	45	J	600	U	3600	U
2,4-DINITROTOLUENE	790	U	450	U	420	U	600	U	3600	U
DIETHYLPHthalATE	790	U	450	U	420	U	600	U	3600	U
FLUORENE	190	J	450	U	63	J	600	U	3600	U
4-CHLOROPHENYL-PHENYL ETHE	790	U	450	U	420	U	600	U	3600	U
4-NITROANILINE	2000	U	1100	U	1100	U	1500	U	9100	U
4,6-DINITRO-2-METHYLPHENOL	2000	U	1100	U	1100	U	1500	U	9100	U
N-NITROSO DIPHENYLAMINE	790	U	450	U	420	U	600	U	3600	U
4-BROMOPHENYL-PHENYLETHER	790	U	450	U	420	U	600	U	3600	U
HEXACHLOROBENZENE	790	U	450	U	420	U	600	U	3600	U
ATRAZINE	790	UJ	450	UJ	420	UJ	600	UJ	3600	UJ
PENTACHLOROPHENOL	2000	U	1100	U	1100	U	1500	U	9100	U
PHENANTHRENE	2300		550		950		320	J	3600	U
ANTHRACENE	330	J	120	J	200	J	70	J	3600	U
CARBAZOLE	250	J	78	J	86	J	600	U	3600	U
DI-N-BUTYLPHthalATE	790	U	450	U	420	U	160	J	3600	U
FLUORANTHENE	3000		810		1600		570	J	440	J
PYRENE	3400		950		1800		660		510	J
BUTYLBENZYLPHthalATE	790	U	450	U	420	U	18000		13000	
3,3'-DICHLOROBENZIDINE	790	U	450	U	420	U	600	U	3600	U
BENZO(A)ANTHRACENE	1500		470		950		320	J	3600	U
CHRYSENE	1800		620		1100		480	J	3600	U
BIS(2-ETHYLHEXYL)PHTHALATE	790	U	780		1000		540	J	3600	U
DI-N-OCTYLPHthalATE	790	U	450	U	420	U	600	U	3600	U
BENZO(B)FLUORANTHENE	1500		550		1100		490	J	3600	U
BENZO(K)FLUORANTHENE	1600		610		840		350	J	3600	U
BENZO(A)PYRENE	1700		500		950		390	J	3600	U
INDENO(1,2,3-CD)-PYRENE	1200		460		750		370	J	3600	U
DIBENZO(A,H)-ANTHRACENE	610	J	230	J	380	J	600	U	3600	U
BENZO(G,H,I)PERYLENE	1400		530		850		510	J	3600	U

Analytical Results (Qualified Data)

Page 13 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1288		SBLKKU							
Sampling Location :	SO-09									
Matrix :	Soil		Soil							
Units :	ug/Kg		ug/Kg							
Date Sampled :	6/2/2004									
Time Sampled :	11:30									
%Moisture :	26		N/A							
pH :	6.8									
Dilution Factor :	1.0		1.0							
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	100	J	330	U						
PHENOL	440	U	330	U						
BIS-(2-CHLOROETHYL)ETHER	440	U	330	U						
2-CHLOROPHENOL	440	U	330	U						
2-METHYLPHENOL	440	U	330	U						
2,2'-OXYBIS(1- CHLOROPROPANE)	440	U	330	U						
ACETOPHENONE	440	U	330	U						
4-METHYLPHENOL	440	U	330	U						
N-NITROSO-DI-N PROPYLAMINE	440	U	330	U						
HEXACHLOROETHANE	440	U	330	U						
NITROBENZENE	440	U	330	U						
ISOPHORONE	440	U	330	U						
2-NITROPHENOL	440	U	330	U						
2,4-DIMETHYLPHENOL	440	U	330	U						
BIS(2-CHLOROETHOXY)METHANE	440	U	330	U						
2,4-DICHLOROPHENOL	440	U	330	U						
NAPHTHALENE	440	U	330	U						
4-CHLOROANILINE	440	U	330	U						
HEXACHLOROBUTADIENE	440	U	330	U						
CAPROLACTAM	440	U	330	U						
4-CHLORO-3-METHYLPHENOL	440	U	330	U						
2-METHYLNAPHTHALENE	440	U	330	U						
HEXACHLOROCYCLO-PENTADIEN	440	U	330	U						
2,4,6-TRICHLOROPHENOL	440	U	330	U						
2,4,5-TRICHLOROPHENOL	1100	U	830	U						
1,1'-BIPHENYL	440	U	330	U						
2-CHLORONAPHTHALENE	440	U	330	U						
2-NITROANILINE	1100	U	830	U						
DIMETHYLPHthalATE	440	U	330	U						
2,6-DINITROTOLUENE	440	U	330	U						
ACENAPHTHYLENE	440	U	330	U						
3-NITROANILINE	1100	U	830	U						
ACENAPHTHENE	440	U	330	U						

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Analytical Results (Qualified Data)

Page 14 of 18

Case #: 32948

SDG : E1269

Site:

BUCYRUS CITY DUMP

Lab.;

CEIMIC

Review

Sample Number :	E1288	SBLKKU								
Sampling Location :	SO-09									
Matrix :	Soil	Soil								
Units :	ug/Kg	ug/Kg								
Date Sampled :	6/2/2004									
Time Sampled :	11:30									
%Moisture :	26	N/A								
pH :	6.8									
Dilution Factor :	1.0	1.0								
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	1100	U	830	UJ						
4-NITROPHENOL	1100	U	830	UJ						
DIBENZOFURAN	440	U	330	U						
2,4-DINITROTOLUENE	440	U	330	U						
DIETHYLPHthalATE	51	J	330	U						
FLUORENE	440	U	330	U						
4-CHLOROPHENYL-PHENYL ETHER	440	U	330	U						
4-NITROANILINE	1100	U	830	U						
4,6-DINITRO-2-METHYLPHENOL	1100	U	830	UJ						
N-NITROSO DIPHENYLAMINE	440	U	330	U						
4-BROMOPHENYL-PHENYLETHER	440	U	330	U						
HEXACHLOROBENZENE	440	U	330	U						
ATRAZINE	440	UJ	330	U						
PENTACHLOROPHENOL	1100	U	830	U						
PHENANTHRENE	140	J	330	U						
ANTHRACENE	440	U	330	U						
CARBAZOLE	440	U	330	U						
DI-N-BUTYLPHthalATE	440	U	330	U						
FLUORANTHENE	160	J	330	U						
PYRENE	190	J	330	U						
BUTYLBENZYLPHthalATE	440	U	330	U						
3,3'-DICHLOROBENZIDINE	440	U	330	U						
BENZO(A)ANTHRACENE	84	J	330	U						
CHRYSENE	110	J	330	U						
BIS(2-ETHYLHEXYL)PHthalATE	440	U	330	U						
DI-N-OCTYLPHthalATE	440	U	330	U						
BENZO(B)FLUORANTHENE	94	J	330	U						
BENZO(K)FLUORANTHENE	120	J	330	U						
BENZO(A)PYRENE	91	J	330	U						
INDENO(1,2,3-CD)PYRENE	70	J	330	U						
DIBENZO(A,H)-ANTHRACENE	440	U	330	U						
BENZO(G,H,I)PERYLENE	89	J	330	U						

Analytical Results (Qualified Data)

Page 15 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Number of Soil Samples : 10

Number of Water Samples : 0

Sample Number :	E1269	E1280	E1280MS	E1280MSD	E1281					
Sampling Location :	GP-SO-10	GP-SO-01	GP-SO-01	GP-SO-01	GP-SO-02					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	17:45	15:30	15:30	15:30	16:24					
%Moisture :	17	20	20	20	36					
pH :	7.8	7.8	7.8	7.8	8.1					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	2.0	U	2.1	U	2.1	UJ	2.1	UJ	2.6	U
BETA-BHC	4.3		2.1	U	2.1	UJ	2.1	UJ	10	
DELTA-BHC	2.0	U	2.1	U	2.1	UJ	2.1	UJ	2.6	U
GAMMA-BHC (LINDANE)	2.0	U	2.1	UJ	4.1	J	3.7	J	2.6	U
HEPTACHLOR	2.0	U	2.1	UJ	5.9	J	3.6	J	2.6	U
ALDRIN	2.0	U	2.1	U	8.4	J	8.0	J	2.6	U
HEPTACHLOR EPOXIDE	4.7		2.8		2.1	J	2.1	UJ	7.3	
ENDOSUF1FAN I	2.0	U	2.1	U	2.1	UJ	2.1	UJ	2.6	U
DIELDRIN	4.0	U	4.1	U	4.1	UJ	4.1	UJ	5.1	U
4,4'-DDE	4.3		14		8.5	J	41	J	10	
ENDRIN	4.0	U	4.1	U	8.9	J	6.0	J	5.1	U
ENDOSULFAN II	4.0	U	4.1	U	4.1	UJ	4.1	UJ	5.1	U
4,4'-DDD	34		12		8.9	J	44	J	31	
ENDOSULFAN SULFATE	4.0	U	4.1	U	4.1	UJ	4.1	UJ	5.1	U
4,4'-DDT	6.7		4.1	U	11	J	13	J	8.7	
METHOXYCHLOR	20	U	21	U	21	UJ	21	UJ	26	U
ENDRIN KETONE	4.0	U	4.1	U	4.1	UJ	4.1	UJ	6.1	
ENDRIN ALDEHYDE	4.0	U	4.1	U	4.1	UJ	4.1	UJ	5.1	U
ALPHA-CHLORDANE	2.0	U	2.1	U	2.1	UJ	2.1	UJ	2.6	U
GAMMA-CHLORDANE	12		2.1	U	2.1	UJ	2.1	UJ	17	
TOXAPHENE	200	U	210	U	210	UJ	210	UJ	260	U
AROCLOR-1016	40	U	41	U	41	UJ	41	UJ	51	U
AROCLOR-1221	81	U	83	U	83	UJ	83	UJ	100	U
AROCLOR-1232	40	U	41	U	41	UJ	41	UJ	51	U
AROCLOR-1242	40	U	41	U	41	UJ	41	UJ	51	U
AROCLOR-1248	40	U	41	U	41	UJ	41	UJ	51	U
AROCLOR-1254	210		170		140		160		630	
AROCLOR-1260	40	U	41	U	41	UJ	41	UJ	51	U

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Analytical Results (Qualified Data)

Page __ 16 __ of __ 18 __

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1281DL	E1282	E1282DL	E1283	E1283DL					
Sampling Location :	GP-SO-02	GP-SO-03	GP-SO-03	SO-04	SO-04					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/3/2004	6/3/2004					
Time Sampled :	16:24	17:15	17:15	15:35	15:35					
%Moisture :	36	43	43	32	32					
pH :	8.1	8.3	8.3	6.6	6.6					
Dilution Factor :	10.0	1.0	10.0	1.0	10.0					
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	26	U	3.0	U	30	U	2.5	U	25	U
BETA-BHC	26	U	3.0	U	30	U	2.5	U	25	U
DELTA-BHC	26	U	3.0	U	30	U	2.5	U	25	U
GAMMA-BHC (LINDANE)	26	U	3.0	U	30	U	2.5	U	25	U
HEPTACHLOR	26	U	4.0	U	30	U	3.5	J	25	U
ALDRIN	26	U	3.0	U	30	U	2.5	U	25	U
HEPTACHLOR EPOXIDE	26	U	3.0	U	30	U	12	J	25	U
ENDOSU1FAN I	26	U	3.0	U	30	U	2.5	U	25	U
DIELDRIN	51	U	24	U	57	U	4.8	U	48	U
4,4'-DDE	51	U	5.7	U	57	U	6.8	J	48	U
ENDRIN	51	U	5.7	U	57	U	8.6	J	48	U
ENDOSULFAN II	51	U	5.7	U	57	U	4.8	U	48	U
4,4'-DDD	51	U	27	U	57	U	4.8	U	48	U
ENDOSULFAN SULFATE	51	U	5.7	U	57	U	4.8	U	48	U
4,4'-DDT	51	U	5.7	U	57	U	37	J	48	U
METHOXYCHLOR	260	U	30	U	300	U	25	U	250	U
ENDRIN KETONE	51	U	5.7	U	57	U	5.7	J	48	U
ENDRIN ALDEHYDE	51	U	5.7	U	57	U	18	J	48	U
ALPHA-CHLORDANE	26	U	6.6	U	30	U	2.5	U	25	U
GAMMA-CHLORDANE	27	U	16	U	34	U	32	J	45	J
TOXAPHENE	2600	U	300	U	3000	U	250	U	2500	U
AROCLOR-1016	510	U	57	U	570	U	48	U	480	U
AROCLOR-1221	1000	U	120	U	1200	U	98	U	980	U
AROCLOR-1232	510	U	57	U	570	U	48	U	480	U
AROCLOR-1242	510	U	57	U	570	U	48	U	480	U
AROCLOR-1248	510	U	57	U	570	U	48	U	480	U
AROCLOR-1254	1000	U	170	U	260	U	1100	U	1700	U
AROCLOR-1260	510	U	57	U	570	U	48	U	480	U

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Analytical Results (Qualified Data)

Page 17 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1284	E1285	E1285DL	E1286	E1286DL					
Sampling Location :	SO-05	SO-06	SO-06	SO-07	SO-07					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	11:45	12:10	12:10	12:15	12:15					
%Moisture :	18	27	27	23	23					
pH :	7.8	7.2	7.2	7.3	7.3					
Dilution Factor :	1.0	1.0	10.0	1.0	10.0					
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	2.0	U	2.3	U	23	U	2.2	U	22	U
BETA-BHC	2.0	U	2.3	U	23	U	2.2	U	22	U
DELTA-BHC	2.0	U	2.3	U	23	U	2.2	U	22	U
GAMMA-BHC (LINDANE)	2.0	U	2.3	U	23	U	2.2	U	22	U
HEPTACHLOR	2.0	U	2.3	U	23	U	2.2	U	22	U
ALDRIN	2.0	U	2.3	U	23	U	2.2	U	22	U
HEPTACHLOR EPOXIDE	2.0	U	7.6	J	23	U	6.9	J	22	U
ENDOSUFAN I	2.0	U	2.3	U	23	U	2.2	U	22	U
DIELDRIN	4.0	U	4.5	U	45	U	4.3	U	43	U
4,4'-DDE	4.0	U	6.7	J	45	U	6.2	J	43	U
ENDRIN	4.0	U	4.8	J	45	U	4.3	U	43	U
ENDOSULFAN II	4.0	U	4.5	U	45	U	4.3	U	43	U
4,4'-DDD	4.0	U	18	J	45	U	4.3	U	43	U
ENDOSULFAN SULFATE	4.0	U	4.5	U	45	U	4.3	U	43	U
4,4'-DDT	4.4	J	100	J	150	J	11	J	43	U
METHOXYCHLOR	20	U	27	J	230	U	35	J	220	U
ENDRIN KETONE	6.6	J	12	J	45	U	8.0	J	43	U
ENDRIN ALDEHYDE	6.0	J	28	J	45	U	18	J	43	U
ALPHA-CHLORDANE	4.2	J	2.3	U	23	U	2.2	U	22	U
GAMMA-CHLORDANE	12	J	30	J	50	J	33	J	53	J
TOXAPHENE	200	U	230	U	2300	U	220	U	2200	U
AROCLOL-1016	40	U	45	U	450	U	43	U	430	U
AROCLOL-1221	81	U	92	U	920	U	87	U	870	U
AROCLOL-1232	40	U	45	U	450	U	43	U	430	U
AROCLOL-1242	40	U	45	U	450	U	43	U	430	U
AROCLOL-1248	40	U	45	U	450	U	43	U	430	U
AROCLOL-1254	170		850		1400		890		1500	
AROCLOL-1260	40	U	45	U	450	U	43	U	430	U

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Analytical Results (Qualified Data)

Page 18 of 18

Case #: 32948

SDG : E1269

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1287	E1287DL		E1288		PBLK01				
Sampling Location :	SO-08	SO-08		SO-09		Soil				
Matrix :	Soil	Soil		Soil		ug/Kg				
Units :	ug/Kg	ug/Kg		ug/Kg		ug/Kg				
Date Sampled :	6/2/2004	6/2/2004		6/2/2004		N/A				
Time Sampled :	15:55	15:55		11:30						
%Moisture :	46	46		26						
pH :	7.0	7.0		6.8						
Dilution Factor :	1.0	10.0		1.0		1.0				
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	3.1	U	31	U	2.3	U	1.7	U		
BETA-BHC	3.1	U	31	U	2.3	U	1.7	U		
DELTA-BHC	3.1	U	31	U	2.3	U	1.7	U		
GAMMA-BHC (LINDANE)	3.1	U	31	U	2.3	U	1.7	U		
HEPTACHLOR	3.1	U	31	U	2.3	U	1.7	U		
ALDRIN	3.1	U	31	U	2.3	U	1.7	U		
HEPTACHLOR EPOXIDE	3.1	U	31	U	2.3	U	1.7	U		
ENDOSU1FAN I	43	J	31	U	2.3	U	1.7	U		
DIELDRIN	23	J	60	U	4.4	U	3.3	U		
4,4'-DDE	6.0	U	60	U	4.4	U	3.3	U		
ENDRIN	6.0	U	60	U	4.4	U	3.3	U		
ENDOSULFAN II	6.0	U	60	U	4.4	U	3.3	U		
4,4'-DDD	45	J	60	U	4.4	U	3.3	U		
ENDOSULFAN SULFATE	6.0	U	60	U	4.4	U	3.3	U		
4,4'-DDT	6.9	J	60	U	4.4	U	3.3	U		
METHOXYCHLOR	31	U	310	U	23	U	17	U		
ENDRIN KETONE	6.0	U	60	U	4.4	U	3.3	U		
ENDRIN ALDEHYDE	6.6	J	60	U	4.4	U	3.3	U		
ALPHA-CHLORDANE	40	J	47	J	2.3	U	1.7	U		
GAMMA-CHLORDANE	30	J	42	J	2.3	U	1.7	U		
TOXAPHENE	310	U	3100	U	230	U	170	U		
ACROCLOR-1016	60	U	600	U	44	U	33	U		
ACROCLOR-1221	120	U	1200	U	89	U	67	U		
ACROCLOR-1232	60	U	600	U	44	U	33	U		
ACROCLOR-1242	60	U	600	U	44	U	33	U		
ACROCLOR-1248	60	U	600	U	44	U	33	U		
ACROCLOR-1254	110		180		44	U	33	U		
ACROCLOR-1260	60	U	600	U	44	U	33	U		

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 32948

SDG : ME1264

Site :

BUCYRUS CITY DUMP

Lab. :

CHEM

Reviewer :

Date :

Number of Soil Samples : 10

Number of Water Samples : 2

Sample Number :	ME1269	ME1280	ME1281	ME1282	ME1283
Sampling Location :	GP-SO-10	GP-SO-01	GP-SO-02	GP-SO-03	SO-04
Matrix :	Soil	Soil	Soil	Soil	Soil
Units :	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/3/2004
Time Sampled :	17:45	15:30	16:24	17:15	15:35
%Solids :	85.6	82.2	60.1	83.6	63.0
Dilution Factor :	1.0	1.0	1.0	1.0	1.0
ANALYTE	Result	Flag	Result	Flag	Result
ALUMINUM	5500		4980		12700
ANTIMONY	56.3		8.8		408
ARSENIC	15.6		7.8		16.7
BARIUM	95.9		97.3		282
BERYLLIUM	1.4		0.43	J	0.42
CADMIUM	1.5		1.9		19.4
CALCIUM	24800		30000		37400
CHROMIUM	21.2	J	24.0	J	54.7
COBALT	9.9		5.2	J	11.2
COPPER	157		77.1		158
IRON	22300		15200		50600
LEAD	208	R	370	R	2470
MAGNESIUM	9630		7990		7070
MANGANESE	634		207		479
MERCURY	5.2	J+	0.45	J+	15.9
NICKEL	29.5		20.5		70.9
POTASSIUM	1140	J	564	UJ	908
SELENIUM	4.0	U	0.56	UJ	0.97
SILVER	1.1	U	1.2	U	0.61
SODIUM	635		194	J	728
THALLIUM	2.9	U	3.0	U	1.3
VANADIUM	16.8		13.2		17.3
ZINC	429		1400		4580
CYANIDE	2.9	U	3.0	U	20.5

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 32948

SDG : ME1264

Site :

BUCYRUS CITY DUMP

Lab. :

CHEM

Reviewer :

Date :

Sample Number :	ME1284		ME1285		ME1286		ME1287		ME1288	
Sampling Location :	SO-05		SO-06		SO-07		SO-08		SO-09	
Matrix :	Soil									
Units :	mg/Kg									
Date Sampled :	6/2/2004		6/2/2004		6/2/2004		6/2/2004		6/2/2004	
Time Sampled :	11:45		12:10		12:15		15:55		11:30	
%Solids :	85.4		75.9		76.0		66.3		72.1	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag								
ALUMINUM	7360		10800		8970		8270		7670	
ANTIMONY	5.2	J	20.4		18.1		17.3		2.9	J
ARSENIC	9.7		15.5		13.6		16.4		10.1	
BARIUM	94.4		205		201		127		121	
BERYLLIUM	0.41	J	0.51	J	0.45	J	0.42	J	0.54	J
CADMIUM	1.2		4.4		3.6		4.9		1.4	
CALCIUM	55500		25500		72400		74300		4020	
CHROMIUM	19.2	J	52.4	J	35.6	J	20.8	J	14.3	J
COBALT	5.7		10.6		8.7		9.1		11.3	
COPPER	91.8		120		107		81.8		31.8	
IRON	17200		35300		26000		25800		19200	
LEAD	63.2	R	627	R	615	R	138	R	90.8	R
MAGNESIUM	14800		8360		8810		35400		1870	
MANGANESE	267		485		495		436		1420	
MERCURY	1.1	J+	1.4	J+	1.8	J+	5.0	J+	0.39	J+
NICKEL	20.5		33.2		24.2		30.1		14.1	
POTASSIUM	1150	J	1540	J	1610	J	1740	J	836	J
SELENIUM	4.0	U	0.75	UJ	4.6	U	5.2	U	0.84	UJ
SILVER	0.68	J	3.4		2.9		2.0		0.89	J
SODIUM	106	J	151	J	153	J	191	J	79.3	J
THALLIUM	2.9	U	0.79	UJ	3.3	U	3.7	U	1.1	UJ
VANADIUM	16.8		20.4		17.3		16.3		21.2	
ZINC	154		625		437		291		105	
CYANIDE	2.9	U	3.3	U	0.33	J	0.71	J	0.24	J

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 32948

SDG : ME1264

Site :

BUCYRUS CITY DUMP

Lab. :

CHEM

Reviewer :

Date :

Sample Number :	ME1288D	ME1288S								
Sampling Location :	SO-09	SO-09								
Matrix :	Soil	Soil								
Units :	mg/Kg	mg/Kg								
Date Sampled :	6/2/2004	6/2/2004								
Time Sampled :	11:30	11:30								
%Solids :	72.5	72.1								
Dilution Factor :	1.0	1.0								
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	7480									
ANTIMONY	2.9	J	27.6							
ARSENIC	11.0		21.7							
BARIUM	111		713							
BERYLLIUM	0.56	J	13.6							
CADMIUM	1.4		15.2							
CALCIUM	3990									
CHROMIUM	21.2		75.9							
COBALT	12.5		148							
COPPER	31.5		101							
IRON	20200									
LEAD	93.4		101							
MAGNESIUM	1830									
MANGANESE	1220		1700							
MERCURY	0.50		1.3							
NICKEL	15.1		152							
POTASSIUM	773									
SELENIUM	0.79	J	12.9							
SILVER	0.82	J	14.4							
SODIUM	76.8	J								
THALLIUM	3.5	U	13.5							
VANADIUM	22.2		160							
ZINC	106		249							
CYANIDE	0.24	J	7.4							

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Analytical Results (Qualified Data)

Page 1 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Number of Soil Samples : 7

Number of Water Samples : 0

Sample Number :	E1276	E1276MS	E1276MSD	E1277	E1278					
Sampling Location :	SED-1	SED-1	SED-1	SED-2	SED-3					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	09:05	09:05	09:05	10:00	10:30					
%Moisture :	48	48	48	45	35					
pH :	7.0	7.0	7.0	7.0	7.0					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	21	U	21	U	21	U	19	U	17	U
CHLOROMETHANE	21	U	21	U	21	U	19	U	17	U
VINYL CHLORIDE	21	U	21	U	21	U	19	U	17	U
BROMOMETHANE	21	U	21	U	21	U	19	U	17	U
CHLOROETHANE	21	U	21	U	21	U	19	U	17	U
TRICHLOROFUOROMETHANE	21	U	21	U	21	U	19	U	17	U
1,1-DICHLOROETHENE	21	U	66		60		19	U	17	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	21	UJ	21	UJ	21	UJ	19	UJ	17	UJ
ACETONE	68		74		110		50		12	J
CARBON DISULFIDE	21	U	21	U	21	U	19	U	17	U
METHYL ACETATE	21	U	21	U	21	U	19	U	17	U
METHYLENE CHLORIDE	60	UJ	56	UJ	55	UJ	44	UJ	41	UJ
TRANS-1,2-DICHLOROETHENE	21	U	21	U	21	U	19	U	17	U
METHYL TERT-BUTYL ETHER	21	U	21	U	21	U	19	U	17	U
1,1-DICHLOROETHANE	21	U	21	U	21	U	19	U	17	U
CIS-1,2-DICHLOROETHENE	21	U	21	U	21	U	19	U	17	U
2-BUTANONE	21	U	11	J	14	J	19	U	17	U
CHLOROFORM	21	U	21	U	21	U	19	U	17	U
1,1,1-TRICHLOROETHANE	21	U	21	U	21	U	19	U	17	U
CYCLOHEXANE	21	U	21	U	21	U	19	U	17	U
CARBON TETRACHLORIDE	21	U	21	U	21	U	19	U	17	U
BENZENE	21	U	74		72		19	U	17	U
1,2-DICHLOROETHANE	21	U	21	U	21	U	19	U	17	U
TRICHLOROETHENE	21	U	68		65		19	U	17	U
METHYLCYCLOHEXANE	21	U	21	U	21	U	19	U	17	U
1,2-DICHLOROPROPANE	21	U	21	U	21	U	19	U	17	U
BROMODICHLOROMETHANE	21	U	21	U	21	U	19	U	17	U
CIS-1,3-DICHLOROPROPENE	21	U	21	U	21	U	19	U	17	U
4-METHYL-2-PENTANONE	21	U	21	U	21	U	19	U	17	U
TOLUENE	21	U	67		63		19	U	17	U
TRANS-1,3-DICHLOROPROPENE	21	U	21	U	21	U	19	U	17	U
1,1,2-TRICHLOROETHANE	21	U	21	U	21	U	19	U	17	U
TETRACHLOROETHENE	21	U	21	U	21	U	19	U	17	U

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Analytical Results (Qualified Data)

Page 2 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1276	E1276MS	E1276MSD	E1277	E1278			
Sampling Location :	SED-1	SED-1	SED-1	SED-2	SED-3			
Matrix :	Soil	Soil	Soil	Soil	Soil			
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004			
Time Sampled :	09:05	09:05	09:05	10:00	10:30			
%Moisture :	48	48	48	45	35			
pH :	7.0	7.0	7.0	7.0	7.0			
Dilution Factor :	1.0	1.0	1.0	1.0	1.0			
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	21	U	21	U	21	U	19	U
DIBROMOCHLOROMETHANE	21	U	21	U	21	U	19	U
1,2-DIBROMOETHANE	21	U	21	U	21	U	19	U
CHLOROBENZENE	21	UJ	63		59		19	U
ETHYLBENZENE	21	U	21	U	21	U	19	U
XYLENES (TOTAL)	21	U	21	U	21	U	19	U
STYRENE	21	U	21	U	21	U	19	U
BROMOFORM	21	U	21	U	21	U	19	U
ISOPROPYLBENZENE	21	U	21	U	21	U	19	U
1,1,2,2-TETRACHLOROETHANE	21	U	21	U	21	U	19	U
1,3-DICHLOROBENZENE	21	U	21	U	21	U	19	U
1,4-DICHLOROBENZENE	21	U	21	U	21	U	19	U
1,2-DICHLOROBENZENE	21	U	21	U	21	U	19	U
1,2-DIBROMO-3-CHLOROPROPANE	21	U	21	U	21	U	19	U
1,2,4-TRICHLOROBENZENE	21	U	21	U	21	U	19	U

Analytical Results (Qualified Data)

Page 3 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1279	E1329	E1330	E1330MS	E1330MSD			
Sampling Location :	SED-4	SED-5	SED-6	SED-6	SED-6			
Matrix :	Soil	Soil	Soil	Soil	Soil			
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004			
Time Sampled :	11:00	11:35	11:30	11:30	11:30			
%Moisture :	44	34	43	43	43			
pH :	7.0	7.0	7.0	7.0	7.0			
Dilution Factor :	1.0	1.0	1.0	1.0	1.0			
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	18	U	38	U	2300	U	2300	U
CHLOROMETHANE	18	U	38	U	2300	U	2300	U
VINYL CHLORIDE	18	U	38	U	2300	U	2300	U
BROMOMETHANE	18	U	38	U	2300	U	2300	U
CHLOROETHANE	18	U	38	U	2300	U	2300	U
TRICHLOROFLUOROMETHANE	18	U	38	U	2300	U	2300	U
1,1-DICHLOROETHENE	18	U	38	U	2300	UJ	5300	VS
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	18	UJ	38	U	2300	U	2300	U
ACETONE	44		37	J	2300	VS	2300	VS
CARBON DISULFIDE	18	U	38	U	2300	U	2300	U
METHYL ACETATE	18	U	38	U	2300	VS	2300	VS
METHYLENE CHLORIDE	45	UJ	45	UJ	2300	VS	2300	VS
TRANS-1,2-DICHLOROETHENE	18	U	38	U	2300	U	2300	U
METHYL TERT-BUTYL ETHER	18	U	38	U	2300	U	2300	U
1,1-DICHLOROETHANE	18	U	38	U	2300	U	2300	U
CIS-1,2-DICHLOROETHENE	18	U	38	U	2300	U	2300	U
2-BUTANONE	18	U	38	UJ	2300	U	2300	U
CHLOROFORM	18	U	38	U	2300	U	2300	U
1,1,1-TRICHLOROETHANE	18	U	38	U	2300	U	2300	U
CYCLOHEXANE	18	U	38	U	2300	U	2300	U
CARBON TETRACHLORIDE	18	U	38	U	2300	U*	2300	U
BENZENE	18	U	38	U	2300	U	9400	VS
1,2-DICHLOROETHANE	18	U	38	U	2300	U	2300	U
TRICHLOROETHENE	18	U	38	U	2300	U	10000	VS
METHYLCYCLOHEXANE	18	U	38	U	2300	U	2300	U
1,2-DICHLOROPROPANE	18	U	38	U	2300	U	2300	U
BROMODICHLOROMETHANE	18	U	38	U	2300	U	2300	U
CIS-1,3-DICHLOROPROPENE	18	U	38	U	2300	U	2300	U
4-METHYL-2-PENTANONE	18	U	38	UJ	2300	U	2300	U
TOLUENE	18	U	540		11000	VS	21000	VS
TRANS-1,3-DICHLOROPROPENE	18	U	38	U	2300	U	2300	U
1,1,2-TRICHLOROETHANE	18	U	38	U	2300	U	2300	U
TETRACHLOROETHENE	18	U	38	U	2300	U	2300	U

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Analytical Results (Qualified Data)

Case #: 33011

SDG : E1276

Page _ 4_ of _17_

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1279	E1329	E1330	E1330MS	E1330MSD					
Sampling Location :	SED-4	SED-5	SED-6	SED-6	SED-6					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	11:00	11:35	11:30	11:30	11:30					
%Moisture :	44	34	43	43	43					
pH :	7.0	7.0	7.0	7.0	7.0					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	18	U	38	UJ	2300	U	2300	U	2300	U
DIBROMOCHLOROMETHANE	18	U	38	U	2300	U	2300	U	2300	U
1,2-DIBROMOETHANE	18	U	38	U	2300	U	2300	U	2300	U
CHLOROBENZENE	18	U	38	U	2300	U	10000	VS	11000	VS
ETHYLBENZENE	18	U	38	U	2300	U	2300	U	2300	U
XYLEMES (TOTAL)	18	U	38	U	2300	U	2300	U	2300	U
STYRENE	18	U	38	U	2300	U	2300	U	2300	U
BROMOFORM	18	U	38	U	2300	U	2300	U	2300	U
ISOPROPYLBENZENE	18	U	38	U	2300	U	2300	U	2300	U
1,1,2,2-TETRACHLOROETHANE	18	U	38	U	2300	U	2300	U	2300	U
1,3-DICHLOROBENZENE	18	U	38	U	2300	U	2300	U	2300	U
1,4-DICHLOROBENZENE	18	U	38	U	29	VS	34	VS	2300	U
1,2-DICHLOROBENZENE	18	U	38	U	2300	U	2300	U	2300	U
1,2-DIBROMO-3-CHLOROPROPANE	18	U	38	R	2300	U	2300	U	2300	U
1,2,4-TRICHLOROBENZENE	18	U	38	U	2300	U	2300	U	2300	U

Analytical Results (Qualified Data)

Page 5 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1331	VBLKLT	VBLKOA	VBLKOB				
Sampling Location :	SED-7	Soil ug/Kg	Soil ug/Kg	Soil ug/Kg				
Matrix :	Soil							
Units :	ug/Kg							
Date Sampled :	6/22/2004							
Time Sampled :	12:40							
%Moisture :	41	N/A	N/A	N/A				
pH :	7.0							
Dilution Factor :	1.0	1.0	1.0	1.0				
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	19	U	1300	U	6	J	4	J
CHLOROMETHANE	19	U	1300	U	10	U	10	U
VINYL CHLORIDE	19	U	1300	U	10	U	10	U
BROMOMETHANE	19	U	1300	U	10	U	10	U
CHLOROETHANE	19	U	1300	U	10	U	10	U
TRICHLOROFUOROMETHANE	19	U	1300	U	10	U	10	U
1,1-DICHLOROETHENE	19	U	1300	U	10	U	10	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	19	UJ	1300	U	10	UJ	10	U
ACETONE	23		1600		10	U	10	U
CARBON DISULFIDE	19	U	1300	U	10	U	10	U
METHYL ACETATE	19	U	330	J	10	U	10	U
METHYLENE CHLORIDE	41	UJ	130	J	7	J	12	J
TRANS-1,2-DICHLOROETHENE	19	U	1300	U	10	U	10	U
METHYL TERT-BUTYL ETHER	19	U	1300	U	10	U	10	U
1,1-DICHLOROETHANE	19	U	1300	U	10	U	10	U
CIS-1,2-DICHLOROETHENE	19	U	1300	U	10	U	10	U
2-BUTANONE	19	U	1300	U	10	U	10	UJ
CHLOROFORM	19	U	1300	U	10	U	10	U
1,1,1-TRICHLOROETHANE	19	U	1300	U	10	U	10	U
CYCLOHEXANE	19	U	1300	U	10	U	10	U
CARBON TETRACHLORIDE	19	U	1300	U	10	U	10	U
BENZENE	19	U	1300	U	10	U	10	U
1,2-DICHLOROETHANE	19	U	1300	U	10	U	10	U
TRICHLOROETHENE	19	U	1300	U	10	U	10	U
METHYLCYCLOHEXANE	19	U	1300	U	10	U	10	U
1,2-DICHLOROPROPANE	19	U	1300	U	10	U	10	U
BROMODICHLOROMETHANE	19	U	1300	U	10	U	10	U
CIS-1,3-DICHLOROPROPENE	19	U	1300	U	10	U	10	U
4-METHYL-2-PENTANONE	19	U	1300	U	10	U	10	UJ
TOLUENE	19	U	1300	U	10	U	10	U
TRANS-1,3-DICHLOROPROPENE	19	U	1300	U	10	U	10	U
1,1,2-TRICHLOROETHANE	19	U	1300	U	10	U	10	U
TETRACHLOROETHENE	19	U	1300	U	10	U	10	U

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Analytical Results (Qualified Data)

Page 6 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1331	VBLKLT	VBLKOA	VBLKOB				
Sampling Location :	SED-7	Soil	Soil	Soil				
Matrix :	Soil	ug/Kg	ug/Kg	ug/Kg				
Units :								
Date Sampled :	6/22/2004							
Time Sampled :	12:40							
%Moisture :	41	N/A	N/A	N/A				
pH :	7.0							
Dilution Factor :	1.0	1.0	1.0	1.0				
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	19	U	1300	U	10	U	10	U
DIBROMOCHLOROMETHANE	19	U	1300	U	10	U	10	U
1,2-DIBROMOETHANE	19	U	1300	U	10	U	10	U
CHLOROBENZENE	19	U	1300	U	10	U	10	U
ETHYLBENZENE	19	U	1300	U	10	U	10	U
XYLENES (TOTAL)	19	U	1300	U	10	U	10	U
STYRENE	19	U	1300	U	10	U	10	U
BROMOFORM	19	U	1300	U	10	U	10	U
ISOPROPYLBENZENE	19	U	1300	U	10	U	10	U
1,1,2,2-TETRACHLOROETHANE	19	U	1300	U	10	U	10	U
1,3-DICHLOROBENZENE	19	U	1300	U	10	U	10	U
1,4-DICHLOROBENZENE	19	U	1300	U	10	U	10	U
1,2-DICHLOROBENZENE	19	U	1300	U	10	U	10	U
1,2-DIBROMO-3-CHLOROPROPANE	19	U	1300	U	10	U	10	R
1,2,4-TRICHLOROBENZENE	19	U	1300	U	10	U	10	U

Analytical Results (Qualified Data)

Page 7 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	VBLKLS	VHBLK01									
Sampling Location :	Water ug/L	Water ug/L									
Matrix :											
Units :											
Date Sampled :											
Time Sampled :											
%Moisture :	N/A	N/A									
pH :											
Dilution Factor :	1.0	1.0									
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result
DICHLORODIFLUOROMETHANE	10	U	10	U							
CHLOROMETHANE	10	U	10	U							
VINYL CHLORIDE	10	U	10	U							
BROMOMETHANE	10	U	10	U							
CHLOROETHANE	10	U	10	U							
TRICHLOROFUOROMETHANE	10	U	10	U							
1,1-DICHLOROETHENE	10	U	10	U							
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHAN	10	U	10	U							
ACETONE	10	U	10	U							
CARBON DISULFIDE	10	U	10	U							
METHYL ACETATE	10	U	10	U							
METHYLENE CHLORIDE	10	U	10	U							
TRANS-1,2-DICHLOROETHENE	10	U	10	U							
METHYL TERT-BUTYL ETHER	10	U	10	U							
1,1-DICHLOROETHANE	10	U	10	U							
CIS-1,2-DICHLOROETHENE	10	U	10	U							
2-BUTANONE	10	U	10	U							
CHLOROFORM	10	U	10	U							
1,1,1-TRICHLOROETHANE	10	U	10	U							
CYCLOHEXANE	10	U	10	U							
CARBON TETRACHLORIDE	10	U	10	U							
BENZENE	10	U	10	U							
1,2-DICHLOROETHANE	10	U	10	U							
TRICHLOROETHENE	10	U	10	U							
METHYLCYCLOHEXANE	10	U	10	U							
1,2-DICHLOROPROPANE	10	U	10	U							
BROMODICHLOROMETHANE	10	U	10	U							
CIS-1,3-DICHLOROPROPENE	10	U	10	U							
4-METHYL-2-PENTANONE	10	U	10	U							
TOLUENE	10	U	10	U							
TRANS-1,3-DICHLOROPROPENE	10	U	10	U							
1,1,2-TRICHLOROETHANE	10	U	10	U							
TETRACHLOROETHENE	10	U	10	U							

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Analytical Results (Qualified Data)

Page 8 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	VBLKLS	VHBLK01								
Sampling Location :										
Matrix :	Water ug/L	Water ug/L								
Units :										
Date Sampled :										
Time Sampled :										
%Moisture :	N/A	N/A								
pH :										
Dilution Factor :	1.0	1.0								
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	10	U	10	U						
DIBROMOCHLOROMETHANE	10	U	10	U						
1,2-DIBROMOETHANE	10	U	10	U						
CHLOROBENZENE	10	U	10	U						
ETHYLBENZENE	10	U	10	U						
XYLENES (TOTAL)	10	U	10	U						
STYRENE	10	U	10	U						
BROMOFORM	10	U	10	U						
ISOPROPYLBENZENE	10	U	10	U						
1,1,2,2-TETRACHLOROETHANE	10	U	10	U						
1,3-DICHLOROBENZENE	10	U	10	U						
1,4-DICHLOROBENZENE	10	U	10	U						
1,2-DICHLOROBENZENE	10	U	10	U						
1,2-DIBROMO-3-CHLOROPROPANE	10	U	10	U						
1,2,4-TRICHLOROBENZENE	10	U	10	U						

Analytical Results (Qualified Data)

Page 9 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Number of Soil Samples : 7

Number of Water Samples : 0

Sample Number :	E1276	E1276DL	E1276MS	E1276MSD	E1277					
Sampling Location :	SED-1	SED-1	SED-1	SED-1	SED-2					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	09:05	09:05	09:05	09:05	10:00					
%Moisture :	38	38	38	38	36					
pH :	7.3	7.3	7.3	7.3	7.3					
Dilution Factor :	6.0	18.0	6.0	6.0	1.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	3200	UJ	9500	UJ	3200	UJ	3200	UJ	89	J
PHENOL	3200	U	9500	U	2300	J	1700	J	510	U
BIS-(2-CHLOROETHYL)ETHER	3200	U	9500	U	3200	U	3200	U	510	U
2-CHLOROPHENOL	3200	U	9500	U	2200	J	1600	J	510	U
2-METHYLPHENOL	3200	U	9500	U	3200	U	3200	U	510	U
2,2'-OXYBIS(1-CHLOROPROPANE	3200	U	9500	U	3200	U	3200	U	510	U
ACETOPHENONE	3200	U	9500	U	3200	U	3200	U	510	U
4-METHYLPHENOL	3200	U	9500	U	3200	U	3200	U	510	U
N-NITROSO-DI-N PROPYLAMINE	3200	UJ	9500	U	1600	J	1000	J	510	U
HEXACHLOROETHANE	3200	U	9500	U	3200	U	3200	U	510	U
NITROBENZENE	3200	U	9500	U	3200	U	3200	U	510	U
ISOPHORONE	3200	U	9500	U	3200	U	3200	U	510	U
2-NITROPHENOL	3200	U	9500	U	3200	U	3200	U	510	U
2,4-DIMETHYLPHENOL	3200	U	9500	U	3200	U	3200	U	510	U
BIS(2-CHLOROETHOXY)METHANE	3200	U	9500	U	3200	U	3200	U	510	U
2,4-DICHLOROPHENOL	3200	U	9500	U	3200	U	3200	U	510	U
NAPHTHALENE	440	J	9500	U	410	J	360	J	510	U
4-CHLOROANILINE	3200	U	9500	U	3200	U	3200	U	510	U
HEXACHLOROBUTADIENE	3200	U	9500	U	3200	U	3200	U	510	U
CAPROLACTAM	3200	U	9500	U	3200	U	3200	U	510	U
4-CHLORO-3-METHYLPHENOL	3200	U	9500	U	2700	J	2000	J	510	U
2-METHYLNAPHTHALENE	390	J	9500	U	370	J	3200	U	510	U
HEXACHLOROCYCLO-PENTADIEN	3200	U	9500	U	3200	U	3200	U	510	U
2,4,6-TRICHLOROPHENOL	3200	U	9500	U	3200	U	3200	U	510	U
2,4,5-TRICHLOROPHENOL	8000	U	24000	U	8000	U	8000	U	1300	U
1,1-BIPHENYL	3200	U	9500	U	3200	U	3200	U	510	U
2-CHLORONAPHTHALENE	3200	U	9500	U	3200	U	3200	U	510	U
2-NITROANILINE	8000	U	24000	U	8000	U	8000	U	1300	U
DIMETHYLPHthalATE	3200	U	9500	U	3200	U	3200	U	510	U
2,6-DINITROTOLUENE	3200	U	9500	U	3200	U	3200	U	510	U
ACENAPHTHYLENE	3200	U	9500	U	3200	U	550	J	510	U
3-NITROANILINE	8000	U	24000	U	8000	U	8000	U	1300	U
ACENAPHTHENE	2300	J	2300	J	4000		3300		89	J

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Analytical Results (Qualified Data)

Page 10 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1276	E1276DL	E1276MS	E1276MSD	E1277					
Sampling Location :	SED-1	SED-1	SED-1	SED-1	SED-2					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	09:05	09:05	09:05	09:05	10:00					
%Moisture :	38	38	38	38	36					
pH :	7.3	7.3	7.3	7.3	7.3					
Dilution Factor :	6.0	18.0	6.0	6.0	1.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	8000	U	24000	U	8000	U	8000	U	1300	U
4-NITROPHENOL	8000	U	24000	U	2800	J	2600	J	1300	U
DIBENZOFURAN	3200	U	9500	U	3200	U	3200	U	510	U
2,4-DINITROTOLUENE	3200	U	9500	U	2100	J	1600	J	510	U
DIETHYLPHthalATE	3200	U	9500	U	3200	U	3200	U	510	U
FLUORENE	2600	J	2800	J	2500	J	2200	J	80	J
4-CHLOROPHENYL-PHENYL ETHER	3200	U	9500	U	3200	U	3200	U	510	U
4-NITROANILINE	8000	U	24000	U	8000	U	8000	U	1300	U
4,6-DINITRO-2-METHYLPHENOL	8000	U	24000	U	8000	U	8000	U	1300	U
N-NITROSO DIPHENYLAMINE	3200	U	9500	U	3200	U	3200	U	510	U
4-BROMOPHENYL-PHENYLETHER	3200	U	9500	U	3200	U	3200	U	510	U
HEXACHLOROBENZENE	3200	U	9500	U	3200	U	3200	U	510	U
ATRAZINE	3200	UJ	9500	UJ	3200	UJ	3200	UJ	510	UJ
PENTACHLOROPHENOL	8000	UJ	24000	U	350	J	470	J	1300	U
PHENANTHRENE	5200		5200	J	4300		3900		630	
ANTHRACENE	4600		4600	J	4300		3900		160	J
CARBAZOLE	3200	U	9500	U	3200	U	3200	U	510	U
DI-N-BUTYLPHthalATE	3200	U	9500	U	3200	U	3200	U	510	U
FLUORANTHENE	19000		19000		19000		19000		1000	
PYRENE	45000	J	45000		46000		39000		1300	
BUTYLBENZYLPHthalATE	3200	U	9500	U	3200	U	3200	U	89	J
3,3'-DICHLOROBENZIDINE	3200	U	9500	U	3200	U	3200	U	510	U
BENZO(A)ANTHRACENE	12000		12000		12000		11000		430	J
CHRYSENE	13000		13000		13000		12000		510	
BIS(2-ETHYLHEXYL)PHTHALATE	2800	J	3400	J	2500	J	2600	J	3600	
DI-N-OCTYLPHthalATE	3200	U	9500	U	3200	U	3200	U	510	U
BENZO(B)FLUORANTHENE	5700		4700	J	5400		5100		410	J
BENZO(K)FLUORANTHENE	6500		7800	J	5300		5800		400	J
BENZO(A)PYRENE	11000		12000		11000		10000		460	J
INDENO(1,2,3-CD)PYRENE	4300		4200	J	4200		3600		290	J
DIBENZO(A,H)-ANTHRACENE	2100	J	1500	J	2000	J	1600	J	97	J
BENZO(G,H,I)PERYLENE	6000		6200	J	5800		5200		370	J

Analytical Results (Qualified Data)

Page 11 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1278	E1279	E1279DL	E1329	E1330					
Sampling Location :	SED-3	SED-4	SED-4	SED-5	SED-6					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	10:30	11:00	11:00	11:35	11:30					
%Moisture :	33	40	40	49	46					
pH :	8.1	8.3	8.3	6.8	7.3					
Dilution Factor:	1.0	1.0	2.0	5.0	6.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	480	UJ	86	J	150	J	3200	UJ	3700	UJ
PHENOL	480	U	540	U	1100	U	3200	U	3700	U
BIS-(2-CHLOROETHYL)ETHER	480	U	540	U	1100	U	3200	U	3700	U
2-CHLOROPHENOL	480	U	540	U	1100	U	3200	U	3700	U
2-METHYLPHENOL	480	U	540	U	1100	U	3200	U	3700	U
2,2'-OXYBIS(1- CHLOROPROPANE	480	U	540	U	1100	U	3200	U	3700	U
ACETOPHENONE	480	U	540	U	1100	U	3200	U	3700	U
4-METHYLPHENOL	480	U	290	J	340	J	7700		8100	
N-NITROSO-DI-N PROPYLAMINE	480	U	540	U	1100	U	3200	U	3700	U
HEXACHLOROETHANE	480	U	540	U	1100	U	3200	U	3700	U
NITROBENZENE	480	U	540	U	1100	U	3200	U	3700	U
ISOPHORONE	480	U	540	U	1100	U	3200	U	3700	U
2-NITROPHENOL	480	U	540	U	1100	U	3200	U	3700	U
2,4-DIMETHYLPHENOL	480	U	540	U	1100	U	3200	U	3700	U
BIS(2-CHLOROETHOXY)METHANE	480	U	540	U	1100	U	3200	U	3700	U
2,4-DICHLOROPHENOL	480	U	540	U	1100	U	3200	U	3700	U
NAPHTHALENE	480	U	87	J	1100	U	3200	U	3700	U
4-CHLOROANILINE	480	U	540	U	1100	U	3200	U	3700	U
HEXACHLOROBUTADIENE	480	U	540	U	1100	U	3200	U	3700	U
CAPROLACTAM	480	U	540	U	1100	U	3200	U	3700	U
4-CHLORO-3-METHYLPHENOL	480	U	540	U	1100	U	3200	U	3700	U
2-METHYLNAPHTHALENE	480	U	110	J	120	J	3200	U	3700	U
HEXACHLOROCYCLO-PENTADIEN	480	U	540	U	1100	U	3200	U	3700	U
2,4,6-TRICHLOROPHENOL	480	U	540	U	1100	U	3200	U	3700	U
2,4,5-TRICHLOROPHENOL	1200	U	1400	U	2700	U	8100	U	9200	U
1,1'-BIPHENYL	480	U	540	U	1100	U	3200	U	3700	U
2-CHLORONAPHTHALENE	480	U	540	U	1100	U	3200	U	3700	U
2-NITROANILINE	1200	U	1400	U	2700	U	8100	U	9200	U
DIMETHYLPHthalATE	480	U	540	U	1100	U	3200	U	3700	U
2,6-DINITROTOLUENE	480	U	540	U	1100	U	3200	U	3700	U
ACENAPHTHYLENE	480	U	540	U	1100	U	3200	U	3700	U
3-NITROANILINE	1200	U	1400	U	2700	U	8100	U	9200	U
ACENAPHTHENE	480	U	500	J	510	J	3200	U	3700	U

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Analytical Results (Qualified Data)

Page 12 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1278	E1279	E1279DL	E1329	E1330			
Sampling Location :	SED-3	SED-4	SED-4	SED-5	SED-6			
Matrix :	Soil	Soil	Soil	Soil	Soil			
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004			
Time Sampled :	10:30	11:00	11:00	11:35	11:30			
%Moisture :	33	40	40	49	46			
pH :	8.1	8.3	8.3	6.8	7.3			
Dilution Factor :	1.0	1.0	2.0	5.0	6.0			
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	1200	U	1400	U	2700	U	8100	U
4-NITROPHENOL	1200	U	1400	U	2700	U	8100	U
DIBENZOFURAN	480	J	150	J	160	J	3200	U
2,4-DINITROTOLUENE	480	U	540	U	1100	U	3200	U
DIETHYLPHTHALATE	480	U	540	U	1100	U	3200	U
FLUORENE	480	U	360	J	400	J	3200	U
4-CHLOROPHENYL-PHENYL ETHER	480	U	540	U	1100	U	3200	U
4-NITROANILINE	1200	U	1400	U	2700	U	8100	U
4,6-DINITRO-2-METHYLPHENOL	1200	U	1400	U	2700	U	8100	U
N-NITROSO DIPHENYLAMINE	480	U	540	U	1100	U	3200	U
4-BROMOPHENYL-PHENYLETHER	480	U	540	U	1100	U	3200	U
HEXACHLOROBENZENE	480	U	540	U	1100	U	3200	U
ATRAZINE	480	UJ	540	UJ	1100	UJ	3200	UJ
PENTACHLOROPHENOL	1200	U	1400	U	2700	U	8100	U
PHENANTHRENE	120	J	2700		2900		1400	J
ANTHRACENE	480	U	700		700	J	3200	U
CARBAZOLE	480	U	310	J	340	J	3200	U
DI-N-BUTYLPHthalate	480	U	540	U	1100	U	3200	U
FLUORANTHENE	130	J	3800		4000		2200	J
PYRENE	180	J	4700		5000		2800	J
BUTYLBENZYLPHthalate	110	J	120	J	120	J	390	J
3,3'-DICHLOROBENZIDINE	480	U	540	U	1100	U	3200	U
BENZO(A)ANTHRACENE	60	J	1700		1800		890	J
CHRYSENE	110	J	1800		2000		1300	J
BIS(2-ETHYLHEXYL)PHTHALATE	3000		3700		3900		21000	
DI-N-OCTYLPHthalate	480	U	110	J	1100	U	2000	J
BENZO(B)FLUORANTHENE	81	J	1300		1600		1100	J
BENZO(K)FLUORANTHENE	72	J	1600		1600		980	J
BENZO(A)PYRENE	76	J	1600		1700		1000	J
INDENO(1,2,3-CD)PYRENE	480	U	990		980	J	700	J
DIBENZO(A,H)ANTHRACENE	480	U	500	J	380	J	3200	U
BENZO(G,H,I)PERYLENE	88	J	1200		1100		800	J

Analytical Results (Qualified Data)

Page 13 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1381	SBLKKG								
Sampling Location :	SED-7									
Matrix :	Soil	Soil								
Units :	ug/Kg	ug/Kg								
Date Sampled :	6/22/2004									
Time Sampled :	12:40									
%Moisture :	36	N/A								
pH :	7.6									
Dilution Factor :	1.0	1.0								
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	510	UJ	330	UJ						
PHENOL	510	U	330	U						
BIS-(2-CHLOROETHYL)ETHER	510	U	330	U						
2-CHLOROPHENOL	510	U	330	U						
2-METHYLPHENOL	510	U	330	U						
2,2'-OXYBIS(1-CHLOROPROPANE	510	U	330	U						
ACETOPHENONE	510	U	330	U						
4-METHYLPHENOL	510	U	330	U						
N-NITROSO-DI-N PROPYLAMINE	510	U	330	U						
HEXACHLOROETHANE	510	U	330	U						
NITROBENZENE	510	U	330	U						
ISOPHORONE	510	U	330	U						
2-NITROPHENOL	510	U	330	U						
2,4-DIMETHYLPHENOL	510	U	330	U						
BIS(2-CHLOROETHOXY)METHANE	510	U	330	U						
2,4-DICHLOROPHENOL	510	U	330	U						
NAPHTHALENE	510	U	330	U						
4-CHLOROANILINE	510	U	330	U						
HEXACHLOROBUTADIENE	510	U	330	U						
CAPROLACTAM	510	U	330	U						
4-CHLORO-3-METHYLPHENOL	510	U	330	U						
2-METHYLNAPHTHALENE	510	U	330	U						
HEXACHLOROCYCLO-PENTADIEN	510	U	330	U						
2,4,6-TRICHLOROPHENOL	510	U	330	U						
2,4,5-TRICHLOROPHENOL	1300	U	830	U						
1,1'-BIPHENYL	510	U	330	U						
2-CHLORONAPHTHALENE	510	U	330	U						
2-NITROANILINE	1300	U	830	U						
DIMETHYLPHthalate	510	U	330	U						
2,6-DINITROTOLUENE	510	U	330	U						
ACE-NAPHTHYLENE	510	U	330	U						
3-NITROANILINE	1300	U	830	U						
ACENAPHTHENE	510	U	330	U						

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Analytical Results (Qualified Data)

Page 14 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1331	SBLKKG								
Sampling Location :	SED-7									
Matrix :	Soil	Soil								
Units :	ug/Kg	ug/Kg								
Date Sampled :	6/22/2004									
Time Sampled :	12:40									
%Moisture :	36	N/A								
pH :	7.6									
Dilution Factor :	1.0	1.0								
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	1300	U	830	U						
4-NITROPHENOL	1300	U	830	U						
DIBENZOFURAN	510	U	330	U						
2,4-DINITROTOLUENE	510	U	330	U						
DIETHYLPHthalATE	510	U	330	U						
FLUORENE	510	U	330	U						
4-CHLOROPHENYL-PHENYL ETHER	510	U	330	U						
4-NITROANILINE	1300	U	830	U						
4,6-DINITRO-2-METHYLPHENOL	1300	U	830	U						
N-NITROSO DIPHENYLAMINE	510	U	330	U						
4-BROMOPHENYL-PHENYLETHER	510	U	330	U						
HEXACHLOROBENZENE	510	U	330	U						
ATRAZINE	510	U	330	U						
PENTACHLOROPHENOL	1300	U	830	U						
PHENANTHRENE	380	J	330	U						
ANTHRACENE	510	U	330	U						
CARBAZOLE	510	U	330	U						
DI-N-BUTYLPHthalATE	510	U	330	U						
FLUORANTHENE	620		330	U						
PYRENE	700		330	U						
BUTYLBENZYLPHthalATE	140	J	330	U						
3,3'-DICHLOROBENZIDINE	510	U	330	U						
BENZO(A)ANTHRACENE	210	J	330	U						
CHRYSENE	340	J	330	U						
BIS(2-ETHYLHEXYL)PHTHALATE	2000		77	J						
DI-N-OCTYLPHthalATE	510	U	330	U						
BENZO(B)FLUORANTHENE	340	J	330	U						
BENZO(K)FLUORANTHENE	220	J	330	U						
BENZO(A)PYRENE	260	J	330	U						
INDENO(1,2,3-CD)PYRENE	190	J	330	U						
DIBENZO(A,H)-ANTHRACENE	72	J	330	U						
BENZO(G,H,I)PERYLENE	250	J	330	U						

Sample Number :	E1276	E1276MS		E1276MSD		E1277		E1278		
Sampling Location :	SED-1	SED-1		SED-1		SED-2		SED-3		
Matrix :	Soil	Soil		Soil		Soil		Soil		
Units :	ug/Kg	ug/Kg		ug/Kg		ug/Kg		ug/Kg		
Date Sampled :	6/22/2004	6/22/2004		6/22/2004		6/22/2004		6/22/2004		
Time Sampled :	09:05	09:05		09:05		10:00		10:30		
%Moisture :	38	38		38		36		33		
pH :	8.0	8.0		8.0		7.6		8.1		
Dilution Factor :	1.0	1.0		1.0		1.0		1.0		
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	2.7	R	2.7	R	2.7	U	2.6	U	2.5	U
BETA-BHC	2.7	R	2.7	R	2.7	U	2.6	U	2.5	U
DELTA-BHC	2.7	R	2.7	R	2.7	U	2.6	U	2.5	U
GAMMA-BHC (LINDANE)	2.7	UJ	7.7	J	9.3		2.6	U	2.5	U
HEPTACHLOR	2.7	UJ	8.4	J	10		2.6	U	2.5	U
ALDRIN	2.7	UJ	6.4	J	7.0		2.6	U	2.5	U
HEPTACHLOR EPOXIDE	2.7	R	2.7	R	2.7	U	2.6	U	2.5	U
ENDOSUFAN I	2.7	R	2.7	R	2.7	U	2.6	U	2.5	U
DIEDRIN	6.0	J	30	J	32		5.1	U	4.9	U
4,4'-DDE	5.3	R	5.3	R	5.9		5.1	U	4.9	U
ENDRIN	5.3	UJ	24	U	22		5.1	U	4.9	U
ENDOSULFAN II	5.3	R	5.3	R	5.3	U	5.1	U	4.9	U
4,4'-DDD	5.3	R	5.3	R	5.3	U	5.1	U	4.9	U
ENDOSULFAN SULFATE	5.3	R	5.3	R	5.3	U	5.1	U	4.9	U
4,4'-DDT	5.3	R	26	J	26		5.1	U	4.9	U
METHOXYCHLOR	27	R	27	R	27	U	26	U	25	U
ENDRIN KETONE	5.3	R	5.3	R	5.3	U	5.1	U	4.9	U
ENDRIN ALDEHYDE	5.3	R	5.3	R	5.3	U	5.1	U	4.9	U
ALPHA-CHLORDANE	2.7	R	2.7	R	2.7	U	4.7		2.5	U
GAMMA-CHLORDANE	2.7	R	2.7	R	2.7	U	5.1		2.5	U
TOXAPHENE	270	R	270	R	270	U	260	U	250	U
AROCLOR-1016	53	R	53	R	53	U	51	U	49	U
AROCLOR-1221	110	R	110	R	110	U	100	U	100	U
AROCLOR-1232	53	R	53	R	53	U	51	U	49	U
AROCLOR-1242	53	R	53	R	53	U	51	U	49	U
AROCLOR-1248	53	R	53	R	53	U	51	U	49	U
AROCLOR-1254	53	R	53	R	53	U	51	U	64	
AROCLOR-1260	53	R	53	R	53	U	51	U	49	U

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Analytical Results (Qualified Data)

Page 16 of 17

Case #: 33011

SDG : E1276

Site :

BUCYRUS CITY DUMP

Lab. :

CEMIC

Reviewer :

Date :

Sample Number :	E1279	E1279DL		E1329		E1330		E1330DL		
Sampling Location :	SED-4	SED-4		SED-5		SED-6		SED-6		
Matrix :	Soil	Soil		Soil		Soil		Soil		
Units :	ug/Kg	ug/Kg		ug/Kg		ug/Kg		ug/Kg		
Date Sampled :	6/22/2004	6/22/2004		6/22/2004		6/22/2004		6/22/2004		
Time Sampled :	11:00	11:00		11:35		11:30		11:30		
%Moisture :	40	40		49		46		46		
pH :	8.2	8.2		6.6		7.3		7.3		
Dilution Factor :	1.0	10.0		1.0		1.0		10.0		
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	2.8	U	28	U	3.3	U	3.1	U	31	U
BETA-BHC	7.0		28	U	3.3	U	4.8		31	U
DELTA-BHC	2.8	U	28	U	3.3	U	3.1	U	31	U
GAMMA-BHC (LINDANE)	2.8	U	28	U	3.3	U	3.1	U	31	U
HEPTACHLOR	2.8	U	28	U	3.3	U	3.1	U	31	U
ALDRIN	2.8	U	28	U	3.3	U	3.1	U	31	U
HEPTACHLOR EPoxide	3.3		28	U	3.3	U	3.1	U	31	U
ENDOSUFAN I	2.8	U	28	U	3.3	U	3.1	U	31	U
DIELDRIN	5.5	U	55	U	6.4	U	6.1	U	61	U
4,4'-DDE	5.5	U	55	U	6.4	U	6.1	U	61	U
ENDRIN	5.5	U	55	U	6.4	U	6.1	U	61	U
ENDOSULFAN II	5.5	U	55	U	6.4	U	6.1	U	61	U
4,4'-DDD	17		55	U	6.4	U	6.1	U	61	U
ENDOSULFAN SULFATE	5.5	U	55	U	6.4	U	6.1	U	61	U
4,4'-DDT	5.5	U	55	U	6.4	U	6.1	U	61	U
METHOXYCHLOR	28	U	280	U	33	U	31	U	310	U
ENDRIN KETONE	5.5	U	55	U	6.4	U	6.1	U	61	U
ENDRIN ALDEHYDE	9.0		55	U	6.4	U	6.1	U	61	U
ALPHA-CHLORDANE	5.5		28	U	3.3	U	3.1	U	31	U
GAMMA-CHLORDANE	10		28	U	3.3	U	6.7		31	U
TOXAPHENE	280	U	2800	U	330	U	310	U	3100	U
AROCLOR-1016	55	U	550	U	64	U	61	U	610	U
AROCLOR-1221	110	U	1100	U	130	U	120	U	1200	U
AROCLOR-1232	55	U	550	U	64	U	61	U	610	U
AROCLOR-1242	55	U	550	U	64	U	61	U	610	U
AROCLOR-1248	55	U	550	U	64	U	61	U	610	U
AROCLOR-1254	130		170		64	U	61	U	610	U
AROCLOR-1260	55	U	550	U	64	U	61	U	610	U

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Analytical Results (Qualified Data)

Page 17 of 17

Case #: 33011 SDG : E1276
 Site : BUCYRUS CITY DUMP
 Lab. : CEIMIC
 Reviewer :
 Date :

Sample Number :	E1331		PBLK01							
Sampling Location :	SED-7									
Matrix :	Soil		Soil							
Units :	ug/Kg		ug/Kg							
Date Sampled :	6/22/2004									
Time Sampled :	12:40									
%Moisture :	36		N/A							
pH :	7.6									
Dilution Factor :	1.0		1.0							
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	2.6	U	1.7	U						
BETA-BHC	2.6	U	1.7	U						
DELTA-BHC	2.6	U	1.7	U						
GAMMA-BHC (LINDANE)	2.6	U	1.7	U						
HEPTACHLOR	2.6	U	1.7	U						
ALDRIN	2.6	U	1.7	U						
HEPTACHLOR EPOXIDE	2.6	U	1.7	U						
ENDOSU1FAN I	2.6	U	1.7	U						
DIELDRIN	5.1	U	3.3	U						
4,4'-DDE	5.1	U	3.3	U						
ENDRIN	5.1	U	3.3	U						
ENDOSULFAN II	5.1	U	3.3	U						
4,4'-DDD	5.1	U	3.3	U						
ENDOSULFAN SULFATE	5.1	U	3.3	U						
4,4'-DDT	5.1	U	3.3	U						
METHOXYCHLOR	26	U	17	U						
ENDRIN KETONE	5.1	U	3.3	U						
ENDRIN ALDEHYDE	5.1	U	3.3	U						
ALPHA-CHLORDANE	2.6	U	1.7	U						
GAMMA-CHLORDANE	2.6	U	1.7	U						
TOXAPHENE	260	U	170	U						
AROCLOR-1016	51	U	33	U						
AROCLOR-1221	100	U	67	U						
AROCLOR-1232	51	U	33	U						
AROCLOR-1242	51	U	33	U						
AROCLOR-1248	51	U	33	U						
AROCLOR-1254	51	U	33	U						
AROCLOR-1260	51	U	33	U						

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 33011

SDG : ME1276

Site :

BUCYRUS CITY DUMP

Lab. :

BONNER

Reviewer :

Date :

Number of Soil Samples : 7

Number of Water Samples : 0

Sample Number :	ME1276	ME1277	ME1278	ME1279	ME1329					
Sampling Location :	SED-1	SED-2	SED-3	SED-4	SED-5					
Matrix :	Soil	Soil	Soil	Soil	Soil					
Units :	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	09:05	10:00	10:30	11:00	11:35					
% Solids :	60.3	64.5	66.5	57.4	54.9					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	11500		5510		8760		8310		7580	
ANTIMONY	10.0	UJ	9.1	UJ	9.0	UJ	10.2	UJ	4.9	UJ
ARSENIC	8.6		6.3		14.3		9.7		6.9	
BARIUM	95.2		51.5	J	71.7		116		76.8	
BERYLLIUM	0.68	J	0.34	J	0.54	J	0.48	J	0.44	J
CADMIUM	0.34	J	0.55	J	0.49	J	2.9		0.33	J
CALCIUM	16600		44900		39400		45400		25500	
CHROMIUM	19.0		14.9		13.4		20.3		13.8	
COBALT	9.7	J	5.2	J	12.4	J	7.6	J	6.8	J
COPPER	49.8		17.9		30.6		33.4		40.9	
IRON	22300		12900		23500		17800		16000	
LEAD	47.0		44.8		40.2		87.5		36.1	
MAGNESIUM	7200		16700		12200		12800		7850	
MANGANESE	236		210		466		210		238	
MERCURY	0.42		0.34		0.47		1.2		0.40	
NICKEL	27.5		15.0		31.8		21.8		19.7	
POTASSIUM	2210		1310	J	2350		2080		1720	J
SELENIUM	1.3	U	5.3	U	1.2	J	6.0	U	6.4	U
SILVER	0.10	J+	1.5	U	1.5	U	0.18	J+	0.15	J+
SODIUM	137	J	144	J	130	J	169	J	115	J
THALLIUM	1.2	J	0.77	J	1.9	J	1.0	J	4.6	U
VANADIUM	26.1	R	14.4	R	21.9	R	21.3	R	18.4	R
ZINC	130		77.3		104		128		111	
CYANIDE	4.1	U	3.9	U	3.8	U	4.4	U	4.6	U

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 33011 SDG : ME1276
 Site : BUCYRUS CITY DUMP
 Lab. : BONNER
 Reviewer :
 Date :

Sample Number :	ME1330	Sampling Location :	SED-6	ME1331	SED-7	ME1276D	SED-1	ME1276S	SED-1				
Matrix :	Soil	Units :	mg/Kg	Matrix :	Soil	Units :	mg/Kg	Matrix :	Soil	Units :			
Date Sampled :	6/22/2004	Time Sampled :	11:30	Date Sampled :	6/22/2004	Time Sampled :	12:40	Date Sampled :	6/22/2004	Time Sampled :	09:05		
%Solids :	53.9	Dilution Factor :	1.0	%Solids :	66.0	Dilution Factor :	1.0	%Solids :	59.9	Dilution Factor :	1.0	60.6	1.0
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag			
ALUMINUM	7370		11300		11500		11800						
ANTIMONY	4.7	UJ	9.0	UJ	10.0	U	6.2	J					
ARSENIC	6.8		22.5		8.8		21.8						
BARIUM	66.9	J	123		99.4		770						
BERYLLIUM	0.44	J	0.73	J	0.68	J	17.0						
CADMIUM	0.37	J	0.75	U	0.29	J	17.0						
CALCIUM	25700		24100		20600		18800						
CHROMIUM	14.0		15.9		15.5		81.6						
COBALT	6.5	J	25.3		9.8	J	174						
COPPER	38.8		28.7		38.4		123						
IRON	15700		35700		22000		21300						
LEAD	43.2		38.5		56.4		52.3						
MAGNESIUM	7630		7880		8040		7450						
MANGANESE	230		1110		263		392						
MERCURY	0.33		0.18		0.46		1.5						
NICKEL	18.8		37.0		25.6		190						
POTASSIUM	1660	J	2830		2240		2120						
SELENIUM	6.4	U	1.7	J	1.4	J	15.1						
SILVER	0.080	J+	1.5	U	0.11	J	15.7						
SODIUM	173	J	96.6	J	116	J	79.3	J					
THALLIUM	0.80	J	3.1	J	1.2	J	18.5						
VANADIUM	17.8	R	26.6	R	26.6		187						
ZINC	137		107		134		288						
CYANIDE	4.6	U	3.8	U	4.1	U	8.3						

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 32948 SDG : ME1264
 Site : BUCYRUS CITY DUMP
 Lab. : CHEM
 Reviewer :
 Date :

Sample Number	ME1264	ME1265	ME1264D	ME1264S						
Sampling Location	GW-1	GW-2	GW-1	GW-1						
Matrix	Water	Water	Water	Water						
Units	ug/L	ug/L	ug/L	ug/L						
Date Sampled	6/2/2004	6/2/2004	6/2/2004	6/2/2004						
Time Sampled	12:30	15:10	12:30	12:30						
%Solids	0.0	0.0	0.0	0.0						
Dilution Factor	1.0	1.0	1.0	1.0						
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	14500		100	UJ	15200		14600			
ANTIMONY	60.0	U	60.0	U	60.0	U	96.0			
ARSENIC	87.7		10.0	U	88.5		125			
BARIUM	253		28.9	UJ	244		2190			
BERYLLIUM	1.5	J	5.0	U	1.5	J	46.3			
CADMIUM	1.7	J	5.0	U	1.7	J	48.5			
CALCIUM	330000		188000		319000					
CHROMIUM	109		16.0		109		289			
COBALT	52.9		50.0	U	52.0		501			
COPPER	114		13.7	J	113		330			
IRON	91900		4440		93200		86800			
LEAD	44.1	R	10.0	R	44.4		62.2			
MAGNESIUM	87500		117000		84500					
MANGANESE	1000		79.8		987		1400			
MERCURY	0.20	U	0.10	UJ	0.070	J	0.86			
NICKEL	157		6.6	J	158		608			
POTASSIUM	14500	J	8450	J	14200					
SELENIUM	35.0	U	35.0	U	35.0	U	46.0			
SILVER	10.0	U	10.0	U	10.0	U	46.8			
SODIUM	43500	J	58200	J	41000					
THALLIUM	25.0	U	25.0	U	25.0	U	43.3			
VANADIUM	32.8	J	50.0	U	33.6	J	491			
ZINC	139		215		148		598			
CYANIDE	10.0	R	10.0	R	10.0	U	94.5			

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Analytical Results (Qualified Data)

Page 1 of 9

Case #: 32948

Site :

Lab. :

Reviewer :

Date :

SDG : E1264

BUCYRUS CITY DUMP

CEIMIC

Number of Soil Samples : 0

Number of Water Samples : 3

Sample Number :	E1264	E1264MS	E1264MSD	E1265	E1298					
Sampling Location :	GW-1	GW-1	GW-1	GW-2	TB-RAS					
Matrix :	Water	Water	Water	Water	Water					
Units :	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/1/2004					
Time Sampled :	12:30	12:30	12:30	15:10	12:00					
%Moisture :	N/A	N/A	N/A	N/A	N/A					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	10	U	10	U	10	U	10	U	10	U
CHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
VINYL CHLORIDE	10	U	10	U	10	U	10	U	10	U
BROMOMETHANE	10	U	10	U	10	U	10	U	10	U
CHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TRICHLORODIFLUOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHENE	10	U	47		48		10	U	10	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	10	U	10	U	10	U	10	U	10	U
ACETONE	10	U	10	U	10	U	10	U	10	U
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10	U
METHYL ACETATE	10	U	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	10	U	1	J	10	U	10	U	10	U
TRANS-1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
METHYL TERT-BUTYL ETHER	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
CIS-1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
2-BUTANONE	10	U	10	U	10	U	10	U	10	U
CHLOROFORM	10	U	10	U	10	U	10	U	10	U
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
CYCLOHEXANE	10	U	10	U	10	U	10	U	10	U
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10	U
BENZENE	10	U	53		55		10	U	10	U
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TRICHLOROETHENE	10	U	55		58		10	U	10	U
METHYLCYCLOHEXANE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10	U
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
CIS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
4-METHYL-2-PENTANOINE	10	U	10	U	10	U	10	U	10	U
TOLUENE	10	U	55		56		10	U	10	U
TRANS-1,3-DICHLOROPROPEN	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TETRACHLOROETHENE	10	U	10	U	10	U	10	U	10	U

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Analytical Results (Qualified Data)

Page 2 of 9

Case #: 32948

SDG : E1264

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1264	E1264MS		E1264MSD		E1265		E1298		
Sampling Location :	GW-1	GW-1		GW-1		GW-2		TB-RAS		
Matrix :	Water	Water		Water		Water		Water		
Units :	ug/L	ug/L		ug/L		ug/L		ug/L		
Date Sampled :	6/2/2004	6/2/2004		6/2/2004		6/2/2004		6/1/2004		
Time Sampled :	12:30	12:30		12:30		15:10		12:00		
%Moisture :	N/A	N/A		N/A		N/A		N/A		
pH :	1.0	1.0		1.0		1.0		1.0		
Dilution Factor :	1.0									
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	10	U	10	U	10	U	10	U	10	U
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,2-DIBROMOETHANE	10	U	10	U	10	U	10	U	10	U
CHLOROBENZENE	10	U	53		55		10	U	1	J
ETHYLBENZENE	10	U	10	U	10	U	10	U	10	U
XYLENES (TOTAL)	10	U	10	U	10	U	10	U	10	U
STYRENE	10	U	10	U	10	U	10	U	10	U
BROMOFORM	10	U	10	U	10	U	10	U	10	U
ISOPROPYLBENZENE	10	U	10	U	10	U	10	U	10	U
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10	U
1,3-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
1,4-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
1,2-DIBROMO-3-CHLOROPROP	10	R	10	R	10	R	10	R	10	R
1,2,4-TRICHLOROBENZENE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ

Analytical Results (Qualified Data)

Page 3 of 9

Case #: 32948

SDG : E1264

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	VBLKLX	VBLKLZ	VHBLK01							
Sampling Location :	Water ug/L	Water ug/L	Water ug/L							
Matrix :										
Units :										
Date Sampled :										
Time Sampled :										
%Moisture :	N/A	N/A	N/A							
pH :										
Dilution Factor :	1.0	1.0	1.0							
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	10	U	10	U	10	U				
CHLOROMETHANE	10	U	10	U	10	U				
VINYL CHLORIDE	10	U	10	U	10	U				
BROMOMETHANE	10	U	10	U	10	U				
CHLOROETHANE	10	U	10	U	10	U				
TRICHLORODIFLUOROMETHANE	10	U	10	U	10	U				
1,1-DICHLOROETHENE	10	U	10	U	10	U				
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	10	U	10	U	10	U				
ACETONE	10	U	10	U	10	U				
CARBON DISULFIDE	10	U	10	U	10	U				
METHYL ACETATE	10	U	10	U	10	U				
METHYLENE CHLORIDE	10	U	10	U	10	U				
TRANS-1,2-DICHLOROETHENE	10	U	10	U	10	U				
METHYL TERT-BUTYL ETHER	10	U	10	U	10	U				
1,1-DICHLOROETHANE	10	U	10	U	10	U				
CIS-1,2-DICHLOROETHENE	10	U	10	U	10	U				
2-BUTANONE	10	U	10	U	10	U				
CHLOROFORM	10	U	10	U	10	U				
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U				
CYCLOHEXANE	10	U	10	U	10	U				
CARBON TETRACHLORIDE	10	U	10	U	10	U				
BENZENE	10	U	10	U	10	U				
1,2-DICHLOROETHANE	10	U	10	U	10	U				
TRICHLOROETHENE	10	U	10	U	10	U				
METHYLCYCLOHEXANE	10	U	10	U	10	U				
1,2-DICHLOROPROPANE	10	U	10	U	10	U				
BROMODICHLOROMETHANE	10	U	10	U	10	U				
CIS-1,3-DICHLOROPROPENE	10	U	10	U	10	U				
4-METHYL-2-PENTANONE	10	U	10	U	10	U				
TOLUENE	10	U	10	U	10	U				
TRANS-1,3-DICHLOROPROPEN	10	U	10	U	10	U				
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U				
TETRACHLOROETHENE	10	U	10	U	10	U				

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Analytical Results (Qualified Data)

Page 4 of 9

Case #: 32948

SDG : E1264

Site :

BUCYRUS CITY DUMP

Lab.:

CEMIC

Reviewer :

Date :

Sample Number :	VBLKLX	VBLKLZ	VHBLK01							
Sampling Location :										
Matrix :	Water	Water	Water							
Units :	ug/L	ug/L	ug/L							
Date Sampled :										
Time Sampled :										
%Moisture :	N/A	N/A	N/A							
pH :										
Dilution Factor :	1.0	1.0	1.0							
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	10	U	10	U	10	U				
DIBROMOCHLOROMETHANE	10	U	10	U	10	U				
1,2-DIBROMOETHANE	10	U	10	U	10	U				
CHLOROBENZENE	10	U	10	U	10	U				
ETHYLBENZENE	10	U	10	U	10	U				
XYLENES (TOTAL)	10	U	10	U	10	U				
STYRENE	10	U	10	U	10	U				
BROMOFORM	10	U	10	U	10	U				
ISOPROPYLBENZENE	10	U	10	U	10	U				
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U				
1,3-DICHLOROBENZENE	10	U	10	U	10	U				
1,4-DICHLOROBENZENE	10	U	10	U	10	U				
1,2-DICHLOROBENZENE	10	U	10	U	10	U				
1,2-DIBROMO-3-CHLOROPROP.	10	R	10	R	10	R				
1,2,4-TRICHLOROBENZENE	1	J	10	UJ	10	UJ				

Analytical Results (Qualified Data)

Page 5 of 9

Case #: 32948

SDG : E1264

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 2

Sample Number:	E1264	E1264MS	E1264MSD	E1265	SBLKJP			
Sampling Location:	GW-1	GW-1	GW-1	GW-2	Water			
Matrix:	Water	Water	Water	Water	ug/L			
Units:	ug/L	ug/L	ug/L	ug/L	ug/L			
Date Sampled:	6/2/2004	6/2/2004	6/2/2004	6/2/2004				
Time Sampled:	12:30	12:30	12:30	15:10				
%Moisture:	N/A	N/A	N/A	N/A	N/A			
pH:								
Dilution Factor:	1.0	1.0	1.0	1.0	1.0			
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	10	U	10	U	10	UJ	10	U
PHENOL	10	UJ	54		24		10	U
BIS-(2-CHLOROETHYL)ETHER	10	U	10	U	10	UJ	10	U
2-CHLOROPHENOL	10	UJ	50		23		10	U
2-METHYLPHENOL	10	U	10	U	10	U	10	U
2,2'-OXYBIS(1- CHLOROPROPANE	10	U	10	U	10	UJ	10	U
ACETOPHENONE	10	U	10	U	10	UJ	10	U
4-METHYLPHENOL	10	U	10	U	10	U	10	U
N-NITROSO-DI-N PROPYLAMINE	10	UJ	29		17	J	10	U
HEXACHLOROETHANE	10	U	10	U	10	UJ	10	U
NITROBENZENE	10	U	10	U	10	UJ	10	U
ISOPHORONE	10	U	10	U	10	UJ	10	U
2-NITROPHENOL	10	U	10	U	10	U	10	U
2,4-DIMETHYLPHENOL	10	U	10	U	10	U	10	U
BIS(2-CHLOROETHOXY)METHANE	10	U	10	U	10	UJ	10	U
2,4-DICHLOROPHENOL	10	U	10	U	10	UJ	10	U
NAPHTHALENE	10	U	10	U	10	UJ	10	U
4-CHLOROANILINE	10	U	10	U	10	UJ	10	U
HEXACHLOROBUTADIENE	10	U	10	U	10	UJ	10	U
CAPROLACTAM	10	U	1	J	10	UJ	10	U
4-CHLORO-3-METHYLPHENOL	10	U	53		41		10	U
2-METHYLNAPHTHALENE	10	U	10	U	10	UJ	10	U
HEXACHLOROCYCLO-PENTADIEN	10	U	10	U	10	UJ	10	U
2,4,6-TRICHLOROPHENOL	10	U	10	U	10	U	10	U
2,4,5-TRICHLOROPHENOL	25	U	25	U	25	U	25	U
1,1'-BIPHENYL	10	U	10	U	10	UJ	10	U
2-CHLORONAPHTHALENE	10	U	10	U	10	UJ	10	U
2-NITROANILINE	25	U	25	U	25	UJ	25	U
DIMETHYLPHthalate	10	U	10	U	10	UJ	10	U
2,6-DINITROTOLUENE	10	U	10	U	10	U	10	U
ACENAPHTHYLENE	10	U	10	U	10	U	10	U
3-NITROANILINE	25	U	25	U	25	UJ	25	U
ACENAPHTHENE	10	UJ	40		27	J	10	U

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Analytical Results (Qualified Data)

Page 6 of 9

Case #: 32948

SDG : E1264

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1264	E1264MS	E1264MSD	E1265	SBLKJP			
Sampling Location :	GW-1	GW-1	GW-1	GW-2	Water ug/L			
Matrix :	Water	Water	Water	Water				
Units :	ug/L	ug/L	ug/L	ug/L				
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004				
Time Sampled :	12:30	12:30	12:30	15:10				
%Moisture :	N/A	N/A	N/A	N/A	N/A			
pH :	1.0	1.0	1.0	1.0	1.0			
Dilution Factor :								
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	25	U	25	U	25	UJ	25	U
4-NITROPHENOL	25	UJ	61		53		25	U
DIBENZOFURAN	10	U	10	U	10	UJ	10	U
2,4-DINITROTOLUENE	10	U	41		32	J	10	U
DIETHYLPHthalATE	10	U	10	U	10	UJ	10	U
FLUORENE	10	U	10	U	10	UJ	10	U
4-CHLOROPHENYL-PHENYL ETHER	10	U	10	U	10	UJ	10	U
4-NITROANILINE	25	U	25	U	25	UJ	25	U
4,6-DINITRO-2-METHYLPHENOL	25	U	25	U	25	UJ	25	U
N-NITROSO DIPHENYLAMINE	10	U	10	U	10	UJ	10	U
4-BROMOPHENYL-PHENYLETHER	10	U	10	U	10	UJ	10	U
HEXACHLOROBENZENE	10	U	10	U	10	UJ	10	U
ATRAZINE	10	U	10	U	10	UJ	10	U
PENTACHLOROPHENOL	25	U	67		54		25	U
PHENANTHRENE	10	U	10	U	10	UJ	10	U
ANTHRACENE	10	U	10	U	10	UJ	10	U
CARBAZOLE	10	U	10	U	10	UJ	10	U
DI-N-BUTYLPHthalATE	10	U	10	U	10	UJ	10	U
FLUORANTHENE	10	U	10	U	10	UJ	10	U
PYRENE	10	U	41		39	J	10	U
BUTYLBENZYLPHthalATE	10	U	10	U	10	UJ	10	U
3,3'-DICHLOROBENZIDINE	10	U	10	U	10	UJ	10	U
BENZO(A)ANTHRACENE	10	U	10	U	10	UJ	10	U
CHRYSENE	10	U	10	U	10	UJ	10	U
BIS(2-ETHYLHEXYL)PHthalATE	10	U	10	U	10	UJ	2	J
DI-N-OCTYLPHthalATE	10	U	10	U	10	UJ	10	U
BENZO(B)FLUORANTHENE	10	U	10	U	10	UJ	10	U
BENZO(K)FLUORANTHENE	10	U	10	U	10	UJ	10	U
BENZO(A)PYRENE	10	U	10	U	10	UJ	10	U
INDENO(1,2,3-CD)-PYRENE	10	U	10	U	10	UJ	10	U
DIBENZO(A,H)-ANTHRACENE	10	U	10	U	10	UJ	10	U
BENZO(G,H,I)PERYLENE	10	U	10	U	10	UJ	10	U

Analytical Results (Qualified Data)

Page 7 of 9

Case #: 32948

SDG : E1264

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	SBLKKF									
Sampling Location :										
Matrix :	Water									
Units :	ug/L									
Date Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :										
Dilution Factor :	1.0									
Semivolatile Compound	Result	Flag								
BENZALDEHYDE	10	UJ								
PHENOL	10	U								
BIS-(2-CHLOROETHYL)ETHER	10	U								
2-CHLOROPHENOL	10	U								
2-METHYLPHENOL	10	U								
2,2'-OXYBIS(1- CHLOROPROPANE	10	U								
ACETOPHENONE	10	U								
4-METHYLPHENOL	10	U								
N-NITROSO-DI-N PROPYLAMINE	10	U								
HEXACHLOROETHANE	10	U								
NITROBENZENE	10	U								
ISOPHORONE	10	U								
2-NITROPHENOL	10	U								
2,4-DIMETHYLPHENOL	10	U								
BIS(2-CHLOROETHOXY)METHANE	10	U								
2,4-DICHLOROPHENOL	10	UJ								
NAPHTHALENE	10	U								
4-CHLOROANILINE	10	U								
HEXACHLOROBUTADIENE	10	UJ								
CAPROLACTAM	10	U								
4-CHLORO-3-METHYLPHENOL	10	U								
2-METHYLNAPHTHALENE	10	U								
HEXACHLOROCYCLO-PENTADIEN	10	UJ								
2,4,6-TRICHLOROPHENOL	10	U								
2,4,5-TRICHLOROPHENOL	25	U								
1,1'-BIPHENYL	10	U								
2-CHLORONAPHTHALENE	10	U								
2-NITROANILINE	25	U								
DIMETHYLPHTHALATE	10	U								
2,6-DINITROTOLUENE	10	U								
ACENAPHTHYLENE	10	U								
3-NITROANILINE	25	U								
ACENAPHTHENE	10	U								

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Analytical Results (Qualified Data)

Page 8 of 9

Case #: 32948

SDG : E1264

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	SBLKKF									
Sampling Location :	Water									
Matrix :	ug/L									
Units :										
Date Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :										
Dilution Factor :	1.0									
Semivolatile Compound	Result	Flag								
2,4-DINITROPHENOL	25	U								
4-NITROPHENOL	25	U								
DIBENZOFURAN	10	U								
2,4-DINITROTOLUENE	10	U								
DIETHYLPHthalATE	10	U								
FLUORENE	10	U								
4-CHLOROPHENYL-PHENYL ETHER	10	U								
4-NITROANILINE	25	U								
4,6-DINITRO-2-METHYLPHENOL	25	U								
N-NITROSO DIPHENYLAMINE	10	U								
4-BROMOPHENYL-PHENYLETHER	10	U								
HEXACHLOROBENZENE	10	U								
ATRAZINE	10	U								
PENTACHLOROPHENOL	25	U								
PHENANTHRENE	10	U								
ANTHRACENE	10	U								
CARBAZOLE	10	U								
DI-N-BUTYLPHthalATE	10	U								
FLUORANTHENE	10	U								
PYRENE	10	U								
BUTYLBENZYLPHthalATE	10	U								
3,3'-DICHLOROBENZIDINE	10	U								
BENZO(A)ANTHRACENE	10	U								
CHRYSENE	10	U								
BIS(2-ETHYLHEXYL)PHTHALATE	10	U								
DI-N-OCTYLPHthalATE	10	U								
BENZO(B)FLUORANTHENE	10	U								
BENZO(K)FLUORANTHENE	10	U								
BENZO(A)PYRENE	10	U								
INDENO(1,2,3-CD)PYRENE	10	U								
DIBENZO(A,H)-ANTHRACENE	10	U								
BENZO(G,H,I)PERYLENE	10	U								

Analytical Results (Qualified Data)

Page 9 of 9

Case #: 32948

SDG : E1264

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 2

Sample Number :	E1264	Sampling Location :	GW-1	Matrix :	Water	Units :	ug/L	Date Sampled :	6/2/2004	Time Sampled :	12:30	%Moisture :	N/A	pH :		Dilution Factor :	1.0	E1264MS	GW-1	Water	ug/L	E1264MSD	GW-1	Water	ug/L	E1265	GW-2	Water	ug/L	PBLK01
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag						
ALPHA-BHC	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U						
BETA-BHC	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U						
DELTA-BHC	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U						
GAMMA-BHC (LINDANE)	0.050	UJ	0.16		0.17		0.13		0.13		0.14		0.15		0.15		0.16		0.16		0.16		0.16							
HEPTACHLOR	0.050	UJ	0.13		0.13		0.14		0.14		0.15		0.15		0.15		0.16		0.16		0.16		0.16							
ALDRIN	0.050	UJ	0.14		0.14		0.15		0.15		0.16		0.16		0.16		0.17		0.17		0.17		0.17							
HEPTACHLOR EPOXIDE	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U						
ENDOSUFAN I	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U						
DIELDRIN	0.10	UJ	0.38		0.38		0.38		0.38		0.38		0.38		0.38		0.38		0.38		0.38		0.38							
4,4'-DDE	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U						
ENDRIN	0.10	UJ	0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40		0.40							
ENDOSULFAN II	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U						
4,4'-DDD	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U						
ENDOSULFAN SULFATE	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U						
4,4'-DDT	0.10	UJ	0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35		0.35							
METHOXYCHLOR	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U						
ENDRIN KETONE	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U						
ENDRIN ALDEHYDE	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U						
ALPHA-CHLORDANE	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U						
GAMMA-CHLORDANE	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U						
TOXAPHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U						
AROCLO-1016	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
AROCLO-1221	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U						
AROCLO-1232	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
AROCLO-1242	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
AROCLO-1248	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
AROCLO-1254	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						
AROCLO-1260	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U						

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Analytical Results (Qualified Data)

Page 1 of 12

Case #: 32948

SDG : E1271

Site :

BUCYRUS CITY DUMP

Lab. :

SHEALY

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 6

Sample Number :	E1271	E1271MS	E1271MSD	E1272	E1273					
Sampling Location :	RW-1	RW-1	RW-1	RW-2	RW-3					
Matrix :	Water	Water	Water	Water	Water					
Units :	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	10:35	10:35	10:35	12:00	14:25					
%Moisture :	N/A	N/A	N/A	N/A	N/A					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.50	U	0.50	UJ	0.50	UJ	0.50	U	0.50	U
Chloromethane	11		13		14		0.50	U	0.50	U
Vinyl Chloride	0.50	U	0.043	J	0.050	J	0.50	U	0.50	U
Bromomethane	2.0		0.73		0.64		0.048	J	0.50	U
Chloroethane	0.62		5.9		3.3		0.092	J	0.50	U
Trichlorodifluoromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethene	0.50	UJ	2.7		3.0		0.50	UJ	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.073	J	0.50	U	0.50	U	0.50	U
Acetone	5.0	U	2.1	J	1.9	J	5.0	U	5.0	U
Carbon Disulfide	0.50	UJ	0.68		0.65		0.50	U	0.50	U
Methyl Acetate	0.50	UJ	0.64	J	0.062	J	0.50	UJ	0.50	UJ
Methylene Chloride	0.50	UJ	0.50	UJ	0.50	UJ	0.50	U	0.50	U
trans-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Methyl tert-Butyl Ether	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1-Dichlorobethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
cis-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
2-Butanone	5.0	U	0.37	J	0.36	J	5.0	U	5.0	U
Bromoform	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,1-Trichloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Cyclohexane	0.50	UJ	0.13	J	0.13	J	0.50	UJ	0.50	UJ
Carbon Tetrachloride	0.077	J	0.066	J	0.059	J	0.50	U	0.50	U
Benzene	0.047	J	4.4		4.6		0.042	J	0.50	U
1,2-Dichloroethane	0.50	U	0.033	J	0.052	J	0.50	U	0.50	U
Trichloroethene	0.50	U	4.3		4.6		0.50	U	0.50	U
Methylcyclohexane	0.50	U	0.50	UJ	0.50	UJ	0.50	U	0.50	U
1,2-Dichloropropane	0.50	U	0.013	J	0.0067	J	0.50	U	0.63	
Bromodichloromethane	0.50	U	0.50	U	0.16	J	0.50	U	0.50	U
cis-1,3-Dichloropropene	0.50	U	0.090	J	0.097	J	0.50	U	0.50	U
4-Methyl-2-pentanone	5.0	U	1.1	J	0.36	J	5.0	U	5.0	U
Toluene	0.50	U	4.3	J	4.5	J	0.50	U	0.50	U
trans-1,3-Dichloropropene	0.50	U	0.16	J	0.18	J	0.50	U	0.50	U
1,1,2-Trichloroethane	0.50	U	0.50	UJ	0.50	UJ	0.50	U	0.50	U

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Analytical Results (Qualified Data)

Page 2 of 12

Case #: 32948

SDG : E1271

Site :

BUCYRUS CITY DUMP

Lab. :

SHEALY

Reviewer :

Date :

Sample Number :	E1271	E1271MS	E1271MSD	E1272	E1273					
Sampling Location :	RW-1	RW-1	RW-1	RW-2	RW-3					
Matrix :	Water	Water	Water	Water	Water					
Units :	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	10:35	10:35	10:35	12:00	14:25					
%Moisture :	N/A	N/A	N/A	N/A	N/A					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	0.50	UJ	0.50	U	0.50	U	0.50	U	0.50	U
2-Hexanone	5.0	U	0.25	J	5.0	U	5.0	U	5.0	U
Dibromochloromethane	0.050	J	0.50	U	0.028	J	0.50	U	0.50	U
1,2-Dibromoethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chlorobenzene	0.50	UJ	4.2	J	4.4	J	0.50	UJ	0.50	UJ
Ethylbenzene	0.50	U	0.50	UJ	0.50	UJ	0.50	U	0.50	U
Xylenes (total)	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Styrene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Bromoform	0.50	UJ	0.50	U	0.073	J	0.50	U	0.50	UJ
Isopropylbenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,2,2-Tetrachloroethane	0.50	U	0.012	J	0.50	U	0.50	U	0.50	U
1,3-Dichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,4-Dichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dibromo-3-chloropropane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2,4-Trichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2,3-Trichlorobenzene	0.50	U	0.50	UJ	0.50	U	0.50	U	0.50	U

Analytical Results (Qualified Data)

Page 3 of 12

Case #: 32948

Site :

Lab. :

Reviewer :

Date :

SDG : E1271

BUCYRUS CITY DUMP

SHEALY

Sample Number :	E1274	E1275	E1297	VBLK07	VBLK08			
Sampling Location :	RW-4	RW-5	TB-SAS	Water	Water			
Matrix :	Water	Water	Water	ug/L	ug/L			
Units :	ug/L	ug/L	ug/L					
Date Sampled :	6/2/2004	6/2/2004	6/1/2004					
Time Sampled :	10:00	10:05	12:00					
%Moisture :	N/A	N/A	N/A					
pH :								
Dilution Factor :	1.0	1.0	1.0	1.0	1.0			
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	4.4		3.7		0.50	U	0.50	U
Chloromethane	0.49	J	0.50	U	0.50	U	0.50	U
Vinyl Chloride	0.50	U	0.50	U	0.50	U	0.50	U
Bromomethane	0.50	U	0.50	U	0.50	U	0.50	U
Chloroethane	0.50	U	0.50	U	0.50	U	0.50	U
Trichlorofluoromethane	0.50	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U	0.50	U	0.50	U	0.50	U
Acetone	5.0	U	5.0	U	6.4		5.0	U
Carbon Disulfide	0.50	U	0.50	UJ	0.50	UJ	0.043	J
Methyl Acetate	0.50	UJ	0.50	UJ	0.50	UJ	0.50	UJ
Methylene Chloride	0.50	U	0.50	U	0.50	U	0.50	U
trans-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U
Methyl tert-Butyl Ether	0.50	U	0.50	U	0.50	U	0.50	U
1,1-Dichloroethane	0.50	U	0.50	U	0.50	U	0.50	U
cis-1,2-Dichloroethene	0.50	U	0.50	U	0.50	U	0.50	U
2-Butanone	5.0	U	5.0	U	5.0	U	5.0	U
Bromochloromethane	0.50	U	0.50	U	0.50	U	0.50	U
Chloroform	0.50	U	0.50	U	0.50	U	0.50	U
1,1,1-Trichloroethane	0.50	U	0.50	U	0.50	U	0.50	U
Cyclohexane	0.50	UJ	0.50	UJ	0.50	UJ	0.50	UJ
Carbon Tetrachloride	0.50	U	0.50	U	0.50	U	0.50	U
Benzene	0.042	J	0.50	U	0.41	J	0.50	U
1,2-Dichloroethane	0.50	U	0.50	U	0.50	U	0.50	U
Trichloroethene	0.50	U	0.50	U	0.50	U	0.50	U
Methylcyclohexane	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dichloropropane	0.50	U	0.50	U	0.50	U	0.50	U
Bromodichloromethane	0.50	U	0.50	U	0.50	U	0.50	U
cis-1,3-Dichloropropene	0.50	U	0.50	U	0.50	UJ	0.50	U
4-Methyl-2-pentanone	5.0	U	5.0	U	5.0	U	5.0	U
Toluene	0.50	U	0.50	U	0.50	UJ	0.14	J
trans-1,3-Dichloropropene	0.50	U	0.50	U	0.50	UJ	0.50	U
1,1,2-Trichloroethane	0.50	U	0.50	U	0.50	UJ	0.50	U

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Analytical Results (Qualified Data)

Page 4 of 12

Case #: 32948

SDG : E1271

Site :

BUCYRUS CITY DUMP

Lab. :

SHEALY

Reviewer :

Date :

Sample Number :	E1274	E1275	E1297	VBLK07	VBLK08					
Sampling Location :	RW-4	RW-5	TB-SAS	Water	Water					
Matrix :	Water	Water	Water	ug/L	ug/L					
Units :	ug/L	ug/L	ug/L							
Date Sampled :	6/2/2004	6/2/2004	6/1/2004							
Time Sampled :	10:00	10:05	12:00							
%Moisture :	N/A	N/A	N/A	N/A	N/A					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Tetrachloroethene	0.50	U	0.50	U	0.50	U	0.13	J	0.22	J
2-Hexanone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Dibromochloromethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2-Dibromoethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chlorobenzene	0.50	UJ	0.50	UJ	0.95	J	0.16	J	0.18	J
Ethylbenzene	0.50	U	0.50	U	0.015	J	0.50	U	0.032	J
Xylenes (total)	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Styrene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Bromoform	0.50	U	0.50	U	0.50	U	0.15	J	0.50	U
Isopropylbenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,1,2,2-Tetrachloroethane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,3-Dichlorobenzene	0.50	U	0.50	U	0.50	U	0.098	J	0.096	J
1,4-Dichlorobenzene	0.50	U	0.50	U	0.50	U	0.11	J	0.13	J
1,2-Dichlorobenzene	0.50	U	0.50	U	0.50	U	0.095	J	0.10	J
1,2-Dibromo-3-chloropropane	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
1,2,4-Trichlorobenzene	0.50	U	0.50	U	0.50	U	0.081	J	0.14	J
1,2,3-Trichlorobenzene	0.50	U	0.50	U	0.50	U	0.50	U	0.084	J

Analytical Results (Qualified Data)

Page 5 of 12

Case #: 32948

SDG : E1271

Site :

BUCYRUS CITY DUMP

Lab. :

SHEALY

Reviewer :

Date :

Sample Number :	VHBLK31									
Sampling Location :										
Matrix :	Water									
Units :	ug/L									
Date Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :										
Dilution Factor :	1.0									
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	0.50	UJ								
Chloromethane	0.50	U								
Vinyl Chloride	0.50	U								
Bromomethane	0.50	U								
Chloroethane	0.50	U								
Trichlorofluoromethane	0.50	U								
1,1-Dichloroethene	0.50	U								
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U								
Acetone	5.0	U								
Carbon Disulfide	0.50	U								
Methyl Acetate	0.50	UJ								
Methylene Chloride	0.36	J								
trans-1,2-Dichloroethene	0.50	U								
Methyl tert-Butyl Ether	0.50	U								
1,1-Dichloroethane	0.50	U								
cis-1,2-Dichloroethene	0.50	U								
2-Butanone	5.0	U								
Bromoform	0.50	U								
1,1,1-Trichloroethane	0.50	U								
Cyclohexane	0.50	U								
Carbon Tetrachloride	0.50	U								
Benzene	0.50	U								
1,2-Dichloroethane	0.50	U								
Trichloroethene	0.50	U								
Methylcyclohexane	0.50	UJ								
1,2-Dichloropropane	0.50	U								
Bromodichloromethane	0.50	U								
cis-1,3-Dichloropropene	0.50	U								
4-Methyl-2-pentanone	5.0	U								
Toluene	0.39	J								
trans-1,3-Dichloropropene	0.50	U								
1,1,2-Trichloroethane	0.50	U								

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Analytical Results (Qualified Data)

Page 7 of 12

Case #: 32948

SDG : E1271

Site :

BUCYRUS CITY DUMP

Lab. :

SHEALY

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 5

Sample Number :	E1271	E1271MS	E1271MSD	E1272	E1273					
Sampling Location :	RW-1	RW-1	RW-1	RW-2	RW-3					
Matrix :	Water	Water	Water	Water	Water					
Units :	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004					
Time Sampled :	10:35	10:35	10:35	12:00	14:25					
%Moisture :	N/A	N/A	N/A	N/A	N/A					
pH :	1.0	1.0	1.0	1.0	1.0					
Dilution Factor :										
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ
Phenol	5.0	U	75		61		5.0	U	5.0	U
bis-(2-Chloroethyl) ether	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Chlorophenol	5.0	U	72		58		5.0	U	5.0	U
2-Methylphenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2,2'-oxybis(1-Chloropropane)	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Acetophenone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
4-Methylphenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
N-Nitroso-di-n-propylamine	5.0	U	13		11		5.0	U	5.0	U
Hexachloroethane	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Nitrobenzene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Isophorone	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Nitrophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2,4-Dimethylphenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
bis(2-Chloroethoxy)methane	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2,4-Dichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
4-Chloroaniline	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Hexachlorobutadiene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Caprolactam	5.0	U	9.4		5.0	U	5.0	U	5.0	U
4-Chloro-3-methylphenol	5.0	UJ	78		64		5.0	U	5.0	U
2-Methylnaphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Hexachlorocyclopentadiene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2,4,5-Trichlorophenol	20	U	20	U	20	U	20	U	20	U
1,1'-Biphenyl	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Chloronaphthalene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2-Nitroaniline	20	U	20	U	20	U	20	U	20	U
Dimethylphthalate	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
2,6-Dinitrotoluene	5.0	U	5.0	U	5.0	U	5.0	UJ	5.0	UJ
Acenaphthylene	5.0	UJ	5.0	UJ	5.0	UJ	5.0	U	20	U
3-Nitroaniline	20	U	20	U	20	U	20	U	20	U
Acenaphthene	5.0	U	15		13		5.0	U	5.0	U

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Analytical Results (Qualified Data)

Page 8 of 12

Case #: 32948

SDG : E1271

Site :

BUCYRUS CITY DUMP

Lab. :

SHEALY

Reviewer :

Date :

Sample Number :	E1271	E1271MS	E1271MSD	E1272	E1273			
Sampling Location :	RW-1	RW-1	RW-1	RW-2	RW-3			
Matrix :	Water	Water	Water	Water	Water			
Units :	ug/L	ug/L	ug/L	ug/L	ug/L			
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004			
Time Sampled :	10:35	10:35	10:35	12:00	14:25			
%Moisture :	N/A	N/A	N/A	N/A	N/A			
pH :								
Dilution Factor :	1.0	1.0	1.0	1.0	1.0			
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	20	U	20	U	20	U	20	U
4-Nitrophenol	20	U	60	55	20	U	20	U
Dibenzofuran	5.0	U	5.0	U	5.0	U	5.0	U
2,4-Dinitrotoluene	5.0	U	14	13	5.0	U	5.0	U
Diethylphthalate	5.0	U	5.0	U	5.0	U	5.0	U
Fluorene	5.0	U	5.0	U	5.0	U	5.0	U
4-Chlorophenyl-phenylether	5.0	U	5.0	U	5.0	U	5.0	U
4-Nitroaniline	20	U	20	U	20	U	20	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U
N-Nitrosodiphenylamine	5.0	U	5.0	U	5.0	U	5.0	U
1,2,4,5-Tetrachlorobenzene	5.0	U	5.0	U	5.0	U	5.0	U
4-Bromophenyl-phenylether	5.0	U	5.0	U	5.0	U	5.0	U
Hexachlorobenzene	5.0	U	5.0	U	5.0	U	5.0	U
Atrazine	5.0	R	5.0	R	5.0	R	5.0	R
Pentachlorophenol	5.0	U	66	52	5.0	U	5.0	U
Phenanthrene	5.0	U	5.0	U	5.0	U	5.0	U
Anthracene	5.0	U	5.0	U	5.0	U	5.0	U
Di-n-butylphthalate	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ
Fluoranthene	5.0	U	5.0	U	5.0	U	5.0	U
Pyrene	5.0	U	18	17	5.0	U	5.0	U
Butylbenzylphthalate	5.0	U	5.0	U	5.0	U	5.0	U
3,3'-Dichlorobenzidine	5.0	U	5.0	U	5.0	U	5.0	U
Benzo(a)anthracene	5.0	U	5.0	U	5.0	U	5.0	U
Chrysene	5.0	U	5.0	U	5.0	U	5.0	U
bis(2-Ethylhexyl)phthalate	5.0	U	5.0	U	5.0	U	5.0	U
Di-n-octylphthalate	5.0	U	5.0	U	5.0	U	5.0	U
Benzo(b)fluoranthene	5.0	U	5.0	U	5.0	U	5.0	U
Benzo(k)fluoranthene	5.0	U	5.0	U	5.0	U	5.0	U
Benzo(a)pyrene	5.0	U	5.0	U	5.0	U	5.0	U
Indeno(1,2,3-cd)pyrene	5.0	U	5.0	U	5.0	U	5.0	U
Dibenzo(a,h)anthracene	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ
Benzo(g,h,i)perylene	5.0	U	5.0	U	5.0	U	5.0	U

Analytical Results (Qualified Data)

Page 9 of 12

Case #: 32948

Site :

Lab. :

Reviewer :

Date :

SDG : E1271

BUCYRUS CITY DUMP

SHEALY

Sample Number :	E1274	E1275	SBLK96	SBLK96RE						
Sampling Location :	RW-4	RW-5	Water	Water	ug/L	ug/L	ug/L	ug/L	ug/L	
Matrix :	Water	Water								
Units :	ug/L	ug/L								
Date Sampled :	6/2/2004	6/2/2004								
Time Sampled :	10:00	10:05								
%Moisture :	N/A	N/A	N/A	N/A						
pH :	1.0	1.0	1.0	1.0						
Dilution Factor :										
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ		
Phenol	5.0	U	5.0	U	5.0	U	5.0	U		
bis-(2-Chloroethyl) ether	5.0	U	5.0	U	5.0	U	5.0	U		
2-Chlorophenol	5.0	U	5.0	U	5.0	U	5.0	U		
2-Methylphenol	5.0	U	5.0	U	5.0	U	5.0	U		
2,2'-oxybis(1-Chloropropane)	5.0	U	5.0	U	5.0	U	5.0	U		
Acetophenone	5.0	U	5.0	U	5.0	U	5.0	U		
4-Methylphenol	5.0	U	5.0	U	5.0	U	5.0	U		
N-Nitroso-di-n-propylamine	5.0	U	5.0	U	5.0	U	5.0	U		
Hexachloroethane	5.0	U	5.0	U	5.0	U	5.0	U		
Nitrobenzene	5.0	U	5.0	U	5.0	U	5.0	U		
Isophorone	5.0	U	5.0	U	5.0	U	5.0	U		
2-Nitrophenol	5.0	U	5.0	U	5.0	U	5.0	U		
2,4-Dimethylphenol	5.0	U	5.0	U	5.0	U	5.0	U		
bis(2-Chloroethoxy)methane	5.0	U	5.0	U	5.0	U	5.0	U		
2,4-Dichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U		
Naphthalene	5.0	U	5.0	U	5.0	U	5.0	U		
4-Chloroaniline	5.0	U	5.0	U	5.0	U	5.0	U		
Hexachlorobutadiene	5.0	U	5.0	U	5.0	U	5.0	U		
Caprolactam	5.0	U	5.0	U	5.0	U	5.0	U		
4-Chloro-3-methylphenol	5.0	U	5.0	U	5.0	U	5.0	U		
2-Methylnaphthalene	5.0	U	5.0	U	5.0	U	5.0	U		
Hexachlorocyclopentadiene	5.0	U	5.0	U	5.0	U	5.0	U		
2,4,6-Trichlorophenol	5.0	U	5.0	U	5.0	U	5.0	U		
2,4,5-Trichlorophenol	20	U	20	U	20	U	20	U		
1,1'-Biphenyl	5.0	U	5.0	U	5.0	U	5.0	U		
2-Chloronaphthalene	5.0	U	5.0	U	5.0	U	5.0	U		
2-Nitroaniline	20	U	20	U	20	U	20	U		
Dimethylphthalate	5.0	U	5.0	U	5.0	U	5.0	U		
2,6-Dinitrotoluene	5.0	U	5.0	U	5.0	U	5.0	U		
Acenaphthylene	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ		
3-Nitroaniline	20	U	20	U	20	U	20	U		
Acenaphthene	5.0	U	5.0	U	5.0	U	5.0	U		

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Analytical Results (Qualified Data)

Page 10 of 12

Case #: 32948

SDG : E1271

Site :

BUCYRUS CITY DUMP

Lab. :

SHEALY

Reviewer :

Date :

Sample Number :	E1274	E1275		SBLK96		SBLK96RE				
Sampling Location :	RW-4	RW-5		Water ug/L		Water ug/L				
Matrix :	Water	Water								
Units :	ug/L	ug/L		ug/L		ug/L				
Date Sampled :	6/2/2004	6/2/2004								
Time Sampled :	10:00	10:05								
%Moisture :	N/A	N/A		N/A		N/A				
pH :										
Dilution Factor :	1.0	1.0		1.0		1.0				
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	20	U	20	U	20	U	20	U		
4-Nitrophenol	20	U	20	U	20	U	20	U		
Dibenzofuran	5.0	U	5.0	U	5.0	U	5.0	U		
2,4-Dinitrotoluene	5.0	U	5.0	U	5.0	U	5.0	U		
Diethylphthalate	5.0	U	5.0	U	5.0	U	5.0	U		
Fluorene	5.0	U	5.0	U	5.0	U	5.0	U		
4-Chlorophenyl-phenylether	5.0	U	5.0	U	5.0	U	5.0	U		
4-Nitroaniline	20	U	20	U	20	U	20	U		
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U		
N-Nitrosodiphenylamine	5.0	U	5.0	U	5.0	U	5.0	U		
1,2,4,5-Tetrachlorobenzene	5.0	U	5.0	U	5.0	U	5.0	U		
4-Bromophenyl-phenylether	5.0	U	5.0	U	5.0	U	5.0	U		
Hexachlorobenzene	5.0	U	5.0	U	5.0	U	5.0	U		
Atrazine	5.0	R	5.0	R	5.0	R	5.0	R		
Pentachlorophenol	5.0	U	5.0	U	5.0	U	5.0	U		
Phanthrene	5.0	U	5.0	U	5.0	U	5.0	U		
Anthracene	5.0	U	5.0	U	5.0	U	5.0	U		
Di-n-butylphthalate	5.0	UJ	5.0	UJ	1.2	J	1.2	J		
Fluoranthene	5.0	U	5.0	U	5.0	U	5.0	U		
Pyrene	5.0	U	5.0	U	5.0	U	5.0	U		
Butylbenzylphthalate	5.0	U	5.0	U	5.0	U	5.0	U		
3,3'-Dichlorobenzidine	5.0	U	5.0	U	5.0	U	5.0	U		
Benzo(a)anthracene	5.0	U	5.0	U	5.0	U	5.0	U		
Chrysene	5.0	U	5.0	U	5.0	U	5.0	U		
bis(2-Ethylhexyl)phthalate	5.0	U	5.0	U	5.0	U	5.0	U		
Di-n-octylphthalate	5.0	U	5.0	U	5.0	U	5.0	U		
Benzo(b)fluoranthene	5.0	U	5.0	U	5.0	U	5.0	U		
Benzo(k)fluoranthene	5.0	U	5.0	U	5.0	U	5.0	U		
Benzo(a)pyrene	5.0	U	5.0	U	5.0	U	5.0	U		
Indeno(1,2,3-cd)pyrene	5.0	U	5.0	U	5.0	U	5.0	U		
Dibenzo(a,h)anthracene	5.0	UJ	5.0	UJ	5.0	VS	5.0	VS		
Benzo(g,h,i)perylene	5.0	U	5.0	U	5.0	U	5.0	U		

Analytical Results (Qualified Data)

Page 11 of 12

Case #: 32948

SDG : E1271

Site :

BUCYRUS CITY DUMP

Lab. :

SHEALY

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 5

Sample Number :	E1271	E1271MS	E1271MSD		E1272		E1273	
Sampling Location :	RW-1	RW-1	RW-1		RW-2		RW-3	
Matrix :	Water	Water	Water		Water		Water	
Units :	ug/L	ug/L	ug/L		ug/L		ug/L	
Date Sampled :	6/2/2004	6/2/2004	6/2/2004		6/2/2004		6/2/2004	
Time Sampled :	10:35	10:35	10:35		12:00		14:25	
%Moisture :	N/A	N/A	N/A		N/A		N/A	
pH :								
Dilution Factor :	1.0	1.0	1.0		1.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.010	U	0.010	U	0.010	U	0.010	U
beta-BHC	0.010	U	0.010	U	0.010	U	0.010	U
delta-BHC	0.010	U	0.010	U	0.010	U	0.010	U
gamma-BHC (Lindane)	0.010	UJ	0.030		0.033		0.010	U
Heptachlor	0.010	UJ	0.021		0.031		0.010	U
Aldrin	0.010	UJ	0.031		0.035		0.010	U
Heptachlor epoxide	0.010	UJ	0.010	UJ	0.010	U	0.010	U
Endosulfan I	0.010	UJ	0.010	UJ	0.010	U	0.010	U
Dieldrin	0.020	UJ	0.079	J	0.084		0.020	U
4,4'-DDE	0.020	UJ	0.020	UJ	0.020	U	0.020	U
Endrin	0.020	UJ	0.079	J	0.085		0.020	U
Endosulfan II	0.020	UJ	0.020	UJ	0.020	U	0.020	U
4,4'-DDD	0.020	UJ	0.020	UJ	0.020	U	0.020	U
Endosulfan sulfate	0.020	UJ	0.020	UJ	0.020	U	0.020	U
4,4'-DDT	0.020	UJ	0.065	J	0.077		0.020	U
Methoxychlor	0.10	UJ	0.10	UJ	0.10	U	0.10	U
Endrin ketone	0.020	UJ	0.020	UJ	0.020	U	0.020	U
Endrin aldehyde	0.020	UJ	0.020	UJ	0.020	U	0.020	U
alpha-Chlordane	0.010	UJ	0.010	UJ	0.010	U	0.010	U
gamma-Chlordane	0.010	UJ	0.010	UJ	0.010	U	0.010	U
Toxaphene	1.0	UJ	1.0	UJ	1.0	U	1.0	U
Aroclor-1016	0.20	UJ	0.20	UJ	0.20	U	0.20	U
Aroclor-1221	0.40	UJ	0.40	UJ	0.40	U	0.40	U
Aroclor-1232	0.20	UJ	0.20	UJ	0.20	U	0.20	U
Aroclor-1242	0.20	UJ	0.20	UJ	0.20	U	0.20	U
Aroclor-1248	0.20	UJ	0.20	UJ	0.20	U	0.20	U
Aroclor-1254	0.20	UJ	0.20	UJ	0.20	U	0.20	U
Aroclor-1260	0.20	UJ	0.20	UJ	0.20	U	0.20	U

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Analytical Results (Qualified Data)

Page 12 of 12

Case #: 32948

SDG : E1271

Site :

BUCYRUS CITY DUMP

Lab. :

SHEALY

Reviewer :

Date :

Sample Number :	E1274	E1275	PBLK97							
Sampling Location :	RW-4	RW-5	Water							
Matrix :	Water	Water	ug/L							
Units :	ug/L	ug/L								
Date Sampled :	6/2/2004	6/2/2004								
Time Sampled :	10:00	10:05								
%Moisture :	N/A	N/A	N/A							
pH :										
Dilution Factor :	1.0	1.0	1.0							
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.010	U	0.010	U	0.010	U				
beta-BHC	0.010	U	0.010	U	0.010	U				
delta-BHC	0.010	U	0.010	U	0.010	U				
gamma-BHC (Lindane)	0.010	U	0.010	U	0.010	U				
Heptachlor	0.010	U	0.010	U	0.010	U				
Aldrin	0.010	U	0.010	U	0.010	U				
Heptachlor epoxide	0.010	U	0.010	U	0.010	U				
Endosulfan I	0.010	U	0.010	U	0.010	U				
Dieldrin	0.020	U	0.020	U	0.020	U				
4,4'-DDE	0.020	U	0.020	U	0.020	U				
Endrin	0.020	U	0.020	U	0.020	U				
Endosulfan II	0.020	U	0.020	U	0.020	U				
4,4'-DDD	0.020	U	0.020	U	0.020	U				
Endosulfan sulfate	0.020	U	0.020	U	0.020	U				
4,4'-DDT	0.020	U	0.020	U	0.020	U				
Methoxychlor	0.10	U	0.10	U	0.10	U				
Endrin ketone	0.020	U	0.020	U	0.020	U				
Endrin aldehyde	0.020	U	0.020	U	0.020	U				
alpha-Chlordane	0.010	U	0.010	U	0.010	U				
gamma-Chlordane	0.010	U	0.010	U	0.010	U				
Toxaphene	1.0	U	1.0	U	1.0	U				
Aroclor-1016	0.20	U	0.20	U	0.20	U				
Aroclor-1221	0.40	U	0.40	U	0.40	U				
Aroclor-1232	0.20	U	0.20	U	0.20	U				
Aroclor-1242	0.20	U	0.20	U	0.20	U				
Aroclor-1248	0.20	U	0.20	U	0.20	U				
Aroclor-1254	0.20	U	0.20	U	0.20	U				
Aroclor-1260	0.20	U	0.20	U	0.20	U				

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 32948

SDG : ME1271

Site :

BUCYRUS CITY DUMP

Lab. :

SENTIN

Number of Soil Samples : 0

Number of Water Samples : 5

Sample Number :	ME1271	ME1272	ME1273	ME1274	ME1275						
Sampling Location :	RW-1	RW-2	RW-3	RW-4	RW-5						
Matrix :	Water	Water	Water	Water	Water						
Units :	ug/L	ug/L	ug/L	ug/L	ug/L						
Date Sampled :	6/2/2004	6/2/2004	6/2/2004	6/2/2004	6/2/2004						
Time Sampled :	10:35	12:00	14:25	10:00	10:05						
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	
ALUMINUM	200ug/L										
ANTIMONY	60ug/L	1.1	UJ	0.66	UJ	0.88	UJ	1.0	UJ	0.92	UJ
ARSENIC	10ug/L	1.0	U	1.0	U	0.17	J	1.0	U	1.0	U
BARIUM	200ug/L	333		14.1		33.4		521		513	
BERYLLIUM	5ug/L	0.050	J	1.0	U	1.0	U	1.0	U	1.0	U
CADMIUM	5ug/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
CHROMIUM	10ug/L	0.13	J	0.060	J	0.28	J	0.18	J	0.12	J
COBALT	50ug/L	0.070	J	0.36	J	0.38	J	0.14	J	0.13	J
COPPER	25ug/L	3.0		0.62	J	14.0		1.1	J	0.80	J
LEAD	3ug/L	0.16	J	0.090	J	2.0		0.72	J	0.51	J
MANGANESE	15ug/L	15.2		66.6		153		12.9		11.6	
MERCURY	0.2ug/L	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
NICKEL	40ug/L	0.85	J	2.3		4.5		0.86	J	0.78	J
SELENIUM	5ug/L	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ
SILVER	10ug/L	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
THALLIUM	10ug/L	1.0	U	1.0	U	0.13	J	1.0	U	1.0	U
VANADIUM	50ug/L	1.0	U	0.19	J	0.54	J	0.10	J	1.0	U
ZINC	20ug/L	67.8		31.6		151		139		92.5	
CYANIDE	10ug/L	10.0	U	1.7	J	10.0	U	10.0	U	10.0	U

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 32948

SDG : ME1271

Site :

BUCYRUS CITY DUMP

Lab. :

SENTIN

Reviewer :

Date :

Sample Number :	ME1271D	ME1271S									
Sampling Location :	RW-1	RW-1									
Matrix :	Water	Water									
Units :	ug/L	ug/L									
Date Sampled :	6/2/2004	6/2/2004									
Time Sampled :	10:35	10:35									
%Solids :	0.0	0.0									
Dilution Factor :	1.0	1.0									
ANALYTE		Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	200ug/L										
ANTIMONY	60ug/L	0.81	J	101							
ARSENIC	10ug/L	1.0	U	36.2							
BARIUM	200ug/L	321		2460							
BERYLLIUM	5ug/L	1.0	U	56.1							
CADMIUM	5ug/L	1.0	U	51.4							
CHROMIUM	10ug/L	0.11	J	218							
COBALT	50ug/L	0.060	J	492							
COPPER	25ug/L	2.2		253							
LEAD	3ug/L	0.13	J	21.7							
MANGANESE	15ug/L	14.5		474							
MERCURY	0.2ug/L	0.20	U	1.0							
NICKEL	40ug/L	0.80	J	515							
SELENIUM	5ug/L	5.0	U	2.1	J						
SILVER	10ug/L	1.0	U	40.0							
THALLIUM	10ug/L	1.0	U	54.8							
VANADIUM	50ug/L	0.060	J	535							
ZINC	20ug/L	62.2		586							
CYANIDE		10.0	U	94.5							

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Analytical Results (Qualified Data)

Page 1 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 9

Sample Number :	E1289	E1289MS	E1289MSD	E1290	E1291			
Sampling Location :	SW-1	SW-1	SW-1	SW-2	SW-3			
Matrix :	Water	Water	Water	Water	Water			
Units :	ug/L	ug/L	ug/L	ug/L	ug/L			
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004			
Time Sampled :	09:05	09:05	09:05	10:10	10:15			
%Moisture :	N/A	N/A	N/A	N/A	N/A			
pH :								
Dilution Factor :	1.0	1.0	1.0	1.0	1.0			
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	10	U	10	U	10	U	10	U
CHLOROMETHANE	10	U	10	U	10	U	10	U
VINYL CHLORIDE	10	U	10	U	10	U	10	U
BROMOMETHANE	10	U	10	U	10	U	10	U
CHLOROETHANE	10	U	10	UJ	10	UJ	10	U
TRICHLOROFUOROMETHANE	10	U	10	UJ	10	UJ	10	U
1,1-DICHLOROETHENE	10	U	49		50		10	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	10	U	10	UJ	10	UJ	10	U
ACETONE	10	U	4	J	10	U	10	U
CARBON DISULFIDE	10	U	10	U	10	U	10	U
METHYL ACETATE	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	10	U	1	J	2	J	10	U
TRANS-1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U
METHYL TERT-BUTYL ETHER	10	U	10	U	10	U	10	U
1,1-DICHLOROETHANE	10	U	10	U	10	U	10	U
CIS-1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U
2-BUTANONE	10	U	10	U	10	U	10	U
CHLOROFORM	10	U	10	U	10	U	10	U
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U	10	U
CYCLOHEXANE	10	U	10	U	10	U	10	U
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U
BENZENE	10	U	51		52		10	U
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U
TRICHLOROETHENE	10	U	53		55		10	U
METHYLCYCLOHEXANE	10	U	10	U	10	U	10	U
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U
CIS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U
4-METHYL-2-PENTANONE	10	U	10	U	10	U	10	U
TOLUENE	10	U	53		55		10	U
TRANS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U
TETRACHLOROETHENE	10	U	10	U	10	U	10	U

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Analytical Results (Qualified Data)

Page 2 of 15

Case #: 33011

Site :

Lab. :

Reviewer :

Date :

SDG : E1289

BUCYRUS CITY DUMP

CEIMIC

Sample Number :	E1289	E1289MS		E1289MSD		E1290		E1291		
Sampling Location :	SW-1	SW-1		SW-1		SW-2		SW-3		
Matrix :	Water	Water		Water		Water		Water		
Units :	ug/L	ug/L		ug/L		ug/L		ug/L		
Date Sampled :	6/22/2004	6/22/2004		6/22/2004		6/22/2004		6/22/2004		
Time Sampled :	09:05	09:05		09:05		10:10		10:15		
%Moisture :	N/A	N/A		N/A		N/A		N/A		
pH :										
Dilution Factor :	1.0	1.0		1.0		1.0		1.0		
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	10	U	10	U	10	U	10	U	10	U
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,2-DIBROMOETHANE	10	U	10	U	10	U	10	U	10	U
CHLOROBENZENE	10	U	53		54		10	U	10	U
ETHYLBENZENE	10	U	10	U	10	U	10	U	10	U
XYLEMES (TOTAL)	10	U	10	U	10	U	10	U	10	U
STYRENE	10	U	10	U	10	U	10	U	10	U
BROMOFORM	10	U	10	U	10	U	10	U	10	U
ISOPROPYLBENZENE	10	U	10	U	10	U	10	U	10	U
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10	U
1,3-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
1,4-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
1,2-DIBROMO-3-CHLOROPROPANE	10	U	10	U	10	U	10	U	10	U
1,2,4-TRICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U

Analytical Results (Qualified Data)

Page 3 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1292	E1293		E1294		E1295		E1296		
Sampling Location :	SW-4	SW-5		SW-6		SW-7		SW-8		
Matrix :	Water	Water		Water		Water		Water		
Units :	ug/L	ug/L		ug/L		ug/L		ug/L		
Date Sampled :	6/22/2004	6/22/2004		6/22/2004		6/22/2004		6/22/2004		
Time Sampled :	11:45	11:20		12:00		12:15		12:40		
%Moisture :	N/A	N/A		N/A		N/A		N/A		
pH :	1.0	1.0		1.0		1.0		1.0		
Dilution Factor :	1.0									
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	10	U	10	U	10	U	10	U	10	U
CHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
VINYL CHLORIDE	10	U	10	U	10	U	10	U	10	U
BROMOMETHANE	10	U	10	U	10	U	10	U	10	U
CHLOROETHANE	10	U	10	U	10	UJ	10	UJ	10	UJ
TRICHLOROFUOROMETHANE	10	U	10	U	10	UJ	10	UJ	10	UJ
1,1-DICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	10	U	10	U	10	UJ	10	UJ	10	UJ
ACETONE	10	U	10	U	3	J	10	U	4	J
CARBON DISULFIDE	10	U	10	U	10	U	10	U	10	U
METHYL ACETATE	10	U	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	10	U	10	U	10	U	10	U	10	U
TRANS-1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
METHYL TERT-BUTYL ETHER	10	U	10	U	10	U	10	U	10	U
1,1-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
CIS-1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
2-BUTANONE	10	U	10	U	10	U	10	U	10	U
CHLOROFORM	10	U	10	U	10	U	10	U	10	U
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
CYCLOHEXANE	10	U	10	U	10	U	10	U	10	U
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U	10	U
BENZENE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TRICHLOROETHENE	10	U	10	U	10	U	10	U	10	U
METHYLCYCLOHEXANE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U	10	U
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
CIS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
4-METHYL-2-PENTANONE	10	U	10	U	10	U	10	U	10	U
TOLUENE	10	U	10	U	10	U	10	U	10	U
TRANS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U	10	U
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U	10	U
TETRACHLOROETHENE	10	U	10	U	10	U	10	U	10	U

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Analytical Results (Qualified Data)

Page 4 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1292	E1293	E1294	E1295	E1296					
Sampling Location :	SW-4	SW-5	SW-6	SW-7	SW-8					
Matrix :	Water	Water	Water	Water	Water					
Units :	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	11:45	11:20	12:00	12:15	12:40					
%Moisture :	N/A	N/A	N/A	N/A	N/A					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	10	U	10	U	10	U	10	U	10	U
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U	10	U
1,2-DIBROMOETHANE	10	U	10	U	10	U	10	U	10	U
CHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
ETHYLBENZENE	10	U	10	U	10	U	10	U	10	U
XYLEMES (TOTAL)	10	U	10	U	10	U	10	U	10	U
STYRENE	10	U	10	U	10	U	10	U	10	U
BROMOFORM	10	U	10	U	10	U	10	U	10	U
ISOPROPYLBENZENE	10	U	10	U	10	U	10	U	10	U
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U	10	U
1,3-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
1,4-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
1,2-DICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
1,2-DIBROMO-3-CHLOROPROPANE	10	U	10	U	10	U	10	U	10	U
1,2,4-TRICHLOROBENZENE	10	U	10	U	10	U	10	U	10	U

Analytical Results (Qualified Data)

Page 5 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number	E1332	VBLKLQ	VBLKLR	VHBLK01						
Sampling Location	TRIP BLANK	Water ug/L	Water ug/L	Water ug/L						
Matrix	Water									
Units	ug/L									
Date Sampled	6/22/2004									
Time Sampled	12:00									
%Moisture	N/A	N/A	N/A	N/A						
pH										
Dilution Factor	1.0	1.0	1.0	1.0						
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
DICHLORODIFLUOROMETHANE	10	U	10	U	10	U	10	U		
CHLOROMETHANE	10	U	10	U	10	U	10	U		
VINYL CHLORIDE	10	U	10	U	10	U	10	U		
BROMOMETHANE	10	U	10	U	10	U	10	U		
CHLOROETHANE	10	UJ	10	U	10	UJ	10	UJ		
TRICHLOROFUOROMETHANE	10	UJ	10	U	10	UJ	10	UJ		
1,1-DICHLOROETHENE	10	U	10	U	10	U	10	U		
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	10	UJ	10	U	10	UJ	10	UJ		
ACETONE	10	U	10	U	10	U	10	U		
CARBON DISULFIDE	10	U	10	U	10	U	10	U		
METHYL ACETATE	10	U	10	U	10	U	10	U		
METHYLENE CHLORIDE	10	U	10	U	10	U	10	U		
TRANS-1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U		
METHYL TERT-BUTYL ETHER	10	U	10	U	10	U	10	U		
1,1-DICHLOROETHANE	10	U	10	U	10	U	10	U		
CIS-1,2-DICHLOROETHENE	10	U	10	U	10	U	10	U		
2-BUTANONE	10	U	10	U	10	U	10	U		
CHLOROFORM	10	U	10	U	10	U	10	U		
1,1,1-TRICHLOROETHANE	10	U	10	U	10	U	10	U		
CYCLOHEXANE	10	U	10	U	10	U	10	U		
CARBON TETRACHLORIDE	10	U	10	U	10	U	10	U		
BENZENE	10	U	10	U	10	U	10	U		
1,2-DICHLOROETHANE	10	U	10	U	10	U	10	U		
TRICHLOROETHENE	10	U	10	U	10	U	10	U		
METHYLCYCLOHEXANE	10	U	10	U	10	U	10	U		
1,2-DICHLOROPROPANE	10	U	10	U	10	U	10	U		
BROMODICHLOROMETHANE	10	U	10	U	10	U	10	U		
CIS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U		
4-METHYL-2-PENTANONE	10	U	10	U	10	U	10	U		
TOLUENE	10	U	10	U	10	U	10	U		
TRANS-1,3-DICHLOROPROPENE	10	U	10	U	10	U	10	U		
1,1,2-TRICHLOROETHANE	10	U	10	U	10	U	10	U		
TETRACHLOROETHENE	10	U	10	U	10	U	10	U		

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Analytical Results (Qualified Data)

Page 6 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1332	VBLKLQ	VBLKLR	VHBLK01						
Sampling Location :	TRIP BLANK	Water ug/L	Water ug/L	Water ug/L						
Matrix :	Water ug/L									
Units :										
Date Sampled :	6/22/2004									
Time Sampled :	12:00									
%Moisture :	N/A	N/A	N/A	N/A						
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0						
Volatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-HEXANONE	10	U	10	U	10	U	10	U		
DIBROMOCHLOROMETHANE	10	U	10	U	10	U	10	U		
1,2-DIBROMOETHANE	10	U	10	U	10	U	10	U		
CHLOROBENZENE	10	U	10	U	10	U	10	U		
ETHYLBENZENE	10	U	10	U	10	U	10	U		
XYLEMES (TOTAL)	10	U	10	U	10	U	10	U		
STYRENE	10	U	10	U	10	U	10	U		
BROMOFORM	10	U	10	U	10	U	10	U		
ISOPROPYLBENZENE	10	U	10	U	10	U	10	U		
1,1,2,2-TETRACHLOROETHANE	10	U	10	U	10	U	10	U		
1,3-DICHLOROBENZENE	10	U	10	U	10	U	10	U		
1,4-DICHLOROBENZENE	10	U	10	U	10	U	10	U		
1,2-DICHLOROBENZENE	10	U	10	U	10	U	10	U		
1,2-DIBROMO-3-CHLOROPROPANE	10	U	10	U	10	U	10	U		
1,2,4-TRICHLOROBENZENE	10	U	10	U	10	U	10	U		

Analytical Results (Qualified Data)

Page 7 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 8

Sample Number :	E1289	E1289MS		E1289MSD		E1290		E1291		
Sampling Location :	SW-1	SW-1	Water		SW-1	Water	SW-2	Water	SW-3	
Matrix :	Water	ug/L	Water	ug/L	Water	ug/L	Water	ug/L	Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	6/22/2004		6/22/2004		6/22/2004		6/22/2004		6/22/2004	
Time Sampled :	09:05		09:05		09:05		10:10		10:15	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	1.0		1.0		1.0		1.0		1.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
PHENOL	10	U	34		32		10	U	10	U
BIS-(2-CHLOROETHYL)ETHER	10	U	10	U	10	U	10	U	10	U
2-CHLOROPHENOL	10	U	34		33		10	U	10	U
2-METHYLPHENOL	10	U	10	U	10	U	10	U	10	U
2,2'-OXYBIS(1-CHLOROPROPANE)	10	U	10	U	10	U	10	U	10	U
ACETOPHENONE	10	U	10	U	10	U	10	U	10	U
4-METHYLPHENOL	10	U	10	U	10	U	10	U	10	U
N-NITROSO-DI-N PROPYLAMINE	10	U	22		22		10	U	10	U
HEXACHLOROETHANE	10	U	10	U	10	U	10	U	10	U
NITROBENZENE	10	U	10	U	10	U	10	U	10	U
ISOPHORONE	10	U	10	U	10	U	10	U	10	U
2-NITROPHENOL	10	U	10	U	10	U	10	U	10	U
2,4-DIMETHYLPHENOL	10	U	10	U	10	U	10	U	10	U
BIS(2-CHLOROETHOXY)METHANE	10	U	10	U	10	U	10	U	10	U
2,4-DICHLOROPHENOL	10	U	10	U	10	U	10	U	10	U
NAPHTHALENE	10	U	10	U	10	U	10	U	10	U
4-CHLOROANILINE	10	U	10	U	10	U	10	U	10	U
HEXACHLOROBUTADIENE	10	U	10	U	10	U	10	U	10	U
CAPROLACTAM	10	U	10	U	10	U	10	U	10	U
4-CHLORO-3-METHYLPHENOL	10	U	40		38		10	U	10	U
2-METHYLNAPHTHALENE	10	U	10	U	10	U	10	U	10	U
HEXACHLOROCYCLO-PENTADIEN	10	U	10	U	10	U	10	U	10	U
2,4,6-TRICHLOROPHENOL	10	U	10	U	10	U	10	U	10	U
2,4,5-TRICHLOROPHENOL	25	U	25	U	25	U	25	U	25	U
1,1'-BIPHENYL	10	U	10	U	10	U	10	U	10	U
2-CHLORONAPHTHALENE	10	U	10	U	10	U	10	U	10	U
2-NITROANILINE	25	U	25	U	25	U	25	U	25	U
DIMETHYLPHthalate	10	U	10	U	10	U	10	U	10	U
2,6-DINITROTOLUENE	10	U	10	U	10	U	10	U	10	U
ACENAPHTHYLENE	10	U	10	U	10	U	10	U	10	U
3-NITROANILINE	25	U	25	U	25	U	25	U	25	U
ACENAPHTHENE	10	U	23		23		10	U	10	U

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Analytical Results (Qualified Data)

Page 8 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number:	E1289	E1289MS	E1289MSD	E1290	E1291					
Sampling Location:	SW-1	SW-1	SW-1	SW-2	SW-3					
Matrix:	Water	Water	Water	Water	Water					
Units:	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled:	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled:	09:05	09:05	09:05	10:10	10:15					
%Moisture:	N/A	N/A	N/A	N/A	N/A					
pH:	1.0	1.0	1.0	1.0	1.0					
Dilution Factor:										
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	25	U	25	U	25	U	25	U	25	U
4-NITROPHENOL	25	U	38		38		25	U	25	U
DIBENZOFURAN	10	U	10	U	10	U	10	U	10	U
2,4-DINITROTOLUENE	10	U	25		25		10	U	10	U
DIETHYLPHTHALATE	10	U	10	U	10	U	10	U	10	U
FLUORENE	10	U	10	U	10	U	10	U	10	U
4-CHLOROPHENYL-PHENYL ETHER	10	U	10	U	10	U	10	U	10	U
4-NITROANILINE	25	U	25	U	25	U	25	U	25	U
4,6-DINITRO-2-METHYLPHENOL	25	U	25	U	25	U	25	U	25	U
N-NITROSO DIPHENYLAMINE	10	U	10	U	10	U	10	U	10	U
4-BROMOPHENYL-PHENYLETHER	10	U	10	U	10	U	10	U	10	U
HEXACHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
ATRAZINE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
PENTACHLOROPHENOL	25	U	44		44		25	U	25	U
PHENANTHRENE	10	U	10	U	10	U	10	U	10	U
ANTHRACENE	10	U	10	U	10	U	10	U	10	U
CARBAZOLE	10	U	10	U	10	U	10	U	10	U
DI-N-BUTYLPHthalate	1	J	10	U	3	J	10	U	10	U
FLUORANTHENE	10	U	10	U	10	U	10	U	10	U
PYRENE	10	U	29		31		10	U	10	U
BUTYLBENZYLPHthalate	10	U	10	U	10	U	10	U	10	U
3,3'-DICHLOROBENZIDINE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
BENZO(A)ANTHRACENE	10	U	10	U	10	U	10	U	10	U
CHRYSENE	10	U	10	U	10	U	10	U	10	U
BIS(2-ETHYLHEXYL)PHthalate	2	J	10	U	7	J	6	J	3	J
DI-N-OCTYLPHthalate	10	U	10	U	10	U	10	U	10	U
BENZO(B)FLUORANTHENE	10	U	10	U	10	U	10	U	10	U
BENZO(K)FLUORANTHENE	10	U	10	U	10	U	10	U	10	U
BENZO(A)PYRENE	10	U	10	U	10	U	10	U	10	U
INDENO(1,2,3-CD)PYRENE	10	U	10	U	10	U	10	U	10	U
DIBENZO(A,H)-ANTHRACENE	10	U	10	U	10	U	10	U	10	U
BENZO(G,H,I)PERYLENE	10	U	10	U	10	U	10	U	10	U

Analytical Results (Qualified Data)

Page 9 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1292	E1293	E1294	E1295	E1296			
Sampling Location :	SW-4	SW-5	SW-6	SW-7	SW-8			
Matrix :	Water	Water	Water	Water	Water			
Units :	ug/L	ug/L	ug/L	ug/L	ug/L			
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004			
Time Sampled :	11:45	11:20	12:00	12:15	12:40			
%Moisture :	N/A	N/A	N/A	N/A	N/A			
pH :								
Dilution Factor :	1.0	1.0	1.0	1.0	1.0			
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
BENZALDEHYDE	10	UJ	10	UJ	10	UJ	10	UJ
PHENOL	10	U	10	U	10	U	10	U
BIS-(2-CHLOROETHYL)ETHER	10	U	10	U	10	U	10	U
2-CHLOROPHENOL	10	U	10	U	10	U	10	U
2-METHYLPHENOL	10	U	10	U	10	U	10	U
2,2'-OXYBIS(1- CHLOROPROPANE)	10	U	10	U	10	U	10	U
ACETOPHENONE	10	U	10	U	10	U	10	U
4-METHYLPHENOL	10	U	10	U	10	U	10	U
N-NITROSO-DI-N PROPYLAMINE	10	U	10	U	10	U	10	U
HEXACHLOROETHANE	10	U	10	U	10	U	10	U
NITROBENZENE	10	U	10	U	10	U	10	U
ISOPHORONE	10	U	10	U	10	U	10	U
2-NITROPHENOL	10	U	10	U	10	U	10	U
2,4-DIMETHYLPHENOL	10	U	10	U	10	U	10	U
BIS(2-CHLOROETHOXY)METHANE	10	U	10	U	10	U	10	U
2,4-DICHLOROPHENOL	10	U	10	U	10	U	10	U
NAPHTHALENE	10	U	10	U	10	U	10	U
4-CHLORANILINE	10	U	10	U	10	U	10	U
HEXAChLOROBUTADIENE	10	U	10	U	10	U	10	U
CAPROLACTAM	10	U	10	U	10	U	10	U
4-CHLORO-3-METHYLPHENOL	10	U	10	U	10	U	10	U
2-METHYLNAPHTHALENE	10	U	10	U	10	U	10	U
HEXAChLOROCYCLO-PENTADIEN	10	U	10	U	10	U	10	U
2,4,6-TRICHLOROPHENOL	10	U	10	U	10	U	10	U
2,4,5-TRICHLOROPHENOL	25	U	25	U	25	U	25	U
1,1'-BIPHENYL	10	U	10	U	10	U	10	U
2-CHLORONAPHTHALENE	10	U	10	U	10	U	10	U
2-NITROANILINE	25	U	25	U	25	U	25	U
DIMETHYLPHthalATE	10	U	10	U	10	U	10	U
2,6-DINITROTOLUENE	10	U	10	U	10	U	10	U
ACENAPHTHYLENE	10	U	10	U	10	U	10	U
3-NITROANILINE	25	U	25	U	25	U	25	U
ACENAPHTHENE	10	U	10	U	10	U	10	U

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Analytical Results (Qualified Data)

Page 10 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	E1292	E1293	E1294	E1295	E1296					
Sampling Location :	SW-4	SW-5	SW-6	SW-7	SW-8					
Matrix :	Water	Water	Water	Water	Water					
Units :	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	11:45	11:20	12:00	12:15	12:40					
%Moisture :	N/A	N/A	N/A	N/A	N/A					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-DINITROPHENOL	25	U	25	U	25	U	25	U	25	U
4-NITROPHENOL	25	U	25	U	25	U	25	U	25	U
DIBENZOFURAN	10	U	10	U	10	U	10	U	10	U
2,4-DINITROTOLUENE	10	U	10	U	10	U	10	U	10	U
DIETHYLPHTHALATE	10	U	10	U	10	U	10	U	10	U
FLUORENE	10	U	10	U	10	U	10	U	10	U
4-CHLOROPHENYL-PHENYL ETHER	10	U	10	U	10	U	10	U	10	U
4-NITROANILINE	25	U	25	U	25	U	25	U	25	U
4,6-DINITRO-2-METHYLPHENOL	25	U	25	U	25	U	25	U	25	U
N-NITROSO DIPHENYLAMINE	10	U	10	U	10	U	10	U	10	U
4-BROMOPHENYL-PHENYLETHER	10	U	10	U	10	U	10	U	10	U
HEXACHLOROBENZENE	10	U	10	U	10	U	10	U	10	U
ATRAZINE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
PENTACHLOROPHENOL	25	U	25	U	25	U	25	U	25	U
PHENANTHRENE	10	U	10	U	10	U	10	U	10	U
ANTHRACENE	10	U	10	U	10	U	10	U	10	U
CARBAZOLE	10	U	10	U	10	U	10	U	10	U
DI-N-BUTYLPHthalate	10	U	10	U	10	U	10	U	10	U
FLUORANTHENE	10	U	10	U	10	U	10	U	10	U
PYRENE	10	U	10	U	10	U	10	U	10	U
BUTYLBENZYLPHthalate	10	U	10	U	10	U	10	U	10	U
3,3'-DICHLOROBENZIDINE	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
BENZO(A)ANTHRACENE	10	U	10	U	10	U	10	U	10	U
CHRYSENE	10	U	10	U	10	U	10	U	10	U
BIS(2-ETHYLHEXYL)PHTHALATE	10	U	10	U	10	U	10	U	2	J
DI-N-OCTYLPHthalate	10	U	10	U	10	U	10	U	10	U
BENZO(B)FLUORANTHENE	10	U	10	U	10	U	10	U	10	U
BENZO(K)FLUORANTHENE	10	U	10	U	10	U	10	U	10	U
BENZO(A)PYRENE	10	U	10	U	10	U	10	U	10	U
INDENO(1,2,3-CD)-PYRENE	10	U	10	U	10	U	10	U	10	U
DIBENZO(A,H)-ANTHRACENE	10	U	10	U	10	U	10	U	10	U
BENZO(G,H,I)PERYLENE	10	U	10	U	10	U	10	U	10	U

Analytical Results (Qualified Data)

Page 11 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Sample Number :	SBLKKA									
Sampling Location :	Water									
Matrix :	ug/L									
Units :										
Data Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :										
Dilution Factor:	1.0									
Semivolatile Compound	Result	Flag								
BENZALDEHYDE	10	UJ								
PHENOL	10	U								
BIS-(2-CHLOROETHYL)ETHER	10	U								
2-CHLOROPHENOL	10	U								
2-METHYLPHENOL	10	U								
2,2'-OXYBIS(1-CHLOROPROPANE)	10	U								
ACETOPHENONE	10	U								
4-METHYLPHENOL	10	U								
N-NITROSO-DI-N PROPYLAMINE	10	U								
HEXACHLOROETHANE	10	U								
NITROBENZENE	10	U								
ISOPHORONE	10	U								
2-NITROPHENOL	10	U								
2,4-DIMETHYLPHENOL	10	U								
BIS(2-CHLOROETHOXY)METHANE	10	U								
2,4-DICHLOROPHENOL	10	U								
NAPHTHALENE	10	U								
4-CHLOROANILINE	10	U								
HEXACHLOROBUTADIENE	10	U								
CAPROLACTAM	10	U								
4-CHLORO-3-METHYLPHENOL	10	U								
2-METHYLNAPHTHALENE	10	U								
HEXACHLOROCYCLO-PENTADIEN	10	U								
2,4,6-TRICHLOROPHENOL	10	U								
2,4,5-TRICHLOROPHENOL	25	U								
1,1'-BIPHENYL	10	U								
2-CHLORONAPHTHALENE	10	U								
2-NITROANILINE	25	U								
DIMETHYLPHTHALATE	10	U								
2,6-DINITROTOLUENE	10	U								
ACENAPHTHYLENE	10	U								
3-NITROANILINE	25	U								
ACENAPHTHENE	10	U								

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Analytical Results (Qualified Data)

Page 12 of 15

Case # 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab.:

CEIMIC

Review

Analytical Results (Qualified Data)

Page 13 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEIMIC

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 8

Sample Number :	E1289	E1289MS	E1289MSD	E1290	E1291					
Sampling Location :	SW-1	SW-1	SW-1	SW-2	SW-3					
Matrix :	Water	Water	Water	Water	Water					
Units :	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	09:05	09:05	09:05	10:10	10:15					
%Moisture :	N/A	N/A	N/A	N/A	N/A					
pH :										
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
BETA-BHC	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
DELTA-BHC	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
GAMMA-BHC (LINDANE)	0.050	U	0.44		0.46		0.050	U	0.050	U
HEPTACHLOR	0.050	U	0.36		0.37		0.050	U	0.050	U
ALDRIN	0.050	U	0.47		0.48		0.050	U	0.050	U
HEPTACHLOR EPOXIDE	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
ENDOSULFAN I	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
DIEDRIN	0.10	U	0.90		0.92		0.10	U	0.10	U
4,4'-DDE	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
ENDRIN	0.10	U	0.89		0.91		0.10	U	0.10	U
ENDOSULFAN II	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
4,4'-DDD	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
ENDOSULFAN SULFATE	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
4,4'-DDT	0.10	U	0.86		0.89		0.10	U	0.10	U
METHOXYCHLOR	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
ENDRIN KETONE	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
ENDRIN ALDEHYDE	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
ALPHA-CHLORDANE	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
GAMMA-CHLORDANE	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
TOXAPHENE	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
AROCLOR-1016	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1221	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
AROCLOR-1232	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1242	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1248	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1254	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1260	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U

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Analytical Results (Qualified Data)

Page 14 of 15

Case #: 33011

SDG : E1289

Site :

BUCYRUS CITY DUMP

Lab. :

CEMIC

Reviewer :

Date :

Sample Number :	E1292	E1293	E1294	E1295	E1296			
Sampling Location :	SW-4	SW-5	SW-6	SW-7	SW-8			
Matrix :	Water	Water	Water	Water	Water			
Units :	ug/L	ug/L	ug/L	ug/L	ug/L			
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004			
Time Sampled :	11:45	11:20	12:00	12:15	12:40			
%Moisture :	N/A	N/A	N/A	N/A	N/A			
pH :								
Dilution Factor :	1.0	1.0	1.0	1.0	1.0			
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	0.050	U	0.050	U	0.050	U	0.050	U
BETA-BHC	0.050	U	0.050	U	0.050	U	0.050	U
DELTA-BHC	0.050	U	0.050	U	0.050	U	0.050	U
GAMMA-BHC (LINDANE)	0.050	U	0.050	U	0.050	U	0.050	U
HEPTACHLOR	0.050	U	0.050	U	0.050	U	0.050	U
ALDRIN	0.050	U	0.050	U	0.050	U	0.050	U
HEPTACHLOR EPOXIDE	0.050	U	0.050	U	0.050	U	0.050	U
ENDOSUFAN I	0.050	U	0.050	U	0.050	U	0.050	U
DIELDRIN	0.10	U	0.10	U	0.10	U	0.10	U
4,4'-DDE	0.10	U	0.10	U	0.10	U	0.10	U
ENDRIN	0.10	U	0.10	U	0.10	U	0.10	U
ENDOSULFAN II	0.10	U	0.10	U	0.10	U	0.10	U
4,4'-DDD	0.10	U	0.10	U	0.10	U	0.10	U
ENDOSULFAN SULFATE	0.10	U	0.10	U	0.10	U	0.10	U
4,4'-DDT	0.10	U	0.10	U	0.10	U	0.10	U
METHOXYCHLOR	0.50	U	0.50	U	0.50	U	0.50	U
ENDRIN KETONE	0.10	U	0.10	U	0.10	U	0.10	U
ENDRIN ALDEHYDE	0.10	U	0.10	U	0.10	U	0.10	U
ALPHA-CHLORDANE	0.050	U	0.050	U	0.050	U	0.050	U
GAMMA-CHLORDANE	0.050	U	0.050	U	0.050	U	0.050	U
TOXAPHENE	5.0	U	5.0	U	5.0	U	5.0	U
AROCLOR-1016	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1221	2.0	U	2.0	U	2.0	U	2.0	U
AROCLOR-1232	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1242	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1248	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1254	1.0	U	1.0	U	1.0	U	1.0	U
AROCLOR-1260	1.0	U	1.0	U	1.0	U	1.0	U

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Analytical Results (Qualified Data)

Page 15 of 15

Case #: 33011 SDG : E1289
 Site : BUCYRUS CITY DUMP
 Lab. : CEIMIC
 Reviewer :
 Date :

Sample Number :	PBLK01									
Sampling Location :	Water									
Matrix :	ug/L									
Units :										
Date Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :										
Dilution Factor :	1.0									
Pesticide/PCB Compound	Result	Flag								
ALPHA-BHC	0.050	U								
BETA-BHC	0.050	U								
DELTA-BHC	0.050	U								
GAMMA-BHC (LINDANE)	0.050	U								
HEPTACHLOR	0.050	U								
ALDRIN	0.050	U								
HEPTACHLOR EPOXIDE	0.050	U								
ENDOSUFAN I	0.050	U								
DIEDRIN	0.10	U								
4,4'-DDE	0.10	U								
ENDRIN	0.10	U								
ENDOSULFAN II	0.10	U								
4,4'-DDD	0.10	U								
ENDOSULFAN SULFATE	0.10	U								
4,4'-DDT	0.10	U								
METHOXYCHLOR	0.50	U								
ENDRIN KETONE	0.10	U								
ENDRIN ALDEHYDE	0.10	U								
ALPHA-CHLORDANE	0.050	U								
GAMMA-CHLORDANE	0.050	U								
TOXAPHENE	5.0	U								
AROCLOR-1016	1.0	U								
AROCLOR-1221	2.0	U								
AROCLOR-1232	1.0	U								
AROCLOR-1242	1.0	U								
AROCLOR-1248	1.0	U								
AROCLOR-1254	1.0	U								
AROCLOR-1260	1.0	U								

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 33011

SDG : ME1289

Site :

BUCYRUS CITY DUMP

Lab. :

BONNER

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 8

Sample Number :	ME1289	ME1290	ME1291	ME1292	ME1293					
Sampling Location :	SW-1	SW-2	SW-3	SW-4	SW-5					
Matrix :	Water	Water	Water	Water	Water					
Units :	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	09:05	10:10	10:15	11:45	11:20					
%Solids :	0.0	0.0	0.0	0.0	0.0					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	2190	J	282	J	179	J	1410	J	1250	J
ANTIMONY	60.0	U	60.0	U	60.0	U	60.0	U	60.0	U
ARSENIC	10.0	U	10.0	U	2.5	J	2.9	J	4.4	J
BARIUM	74.8	J	63.1	J	59.8	J	69.3	J	69.6	J
BERYLLIUM	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
CADMIUM	0.58	J	5.0	U	5.0	U	0.47	J	5.0	U
CALCIUM	76800		99600		96000		76400		77500	
CHROMIUM	2.1	J	10.0	U	10.0	U	1.5	J	1.5	J
COBALT	0.79	J	50.0	U	50.0	U	1.2	J	50.0	U
COPPER	3.6	J	3.1	J	2.2	J	3.3	J	3.6	J
IRON	1940	J	490	J	303	J	1900	J	1710	J
LEAD	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U
MAGNESIUM	20100		29800		28700		20100		20200	
MANGANESE	47.9	J	66.2	J	47.5	J	49.3	J	45.1	J
MERCURY	0.20	U	0.20	U	0.050	J+	0.20	UJ	0.22	J+
NICKEL	2.9	J	3.6	J	3.4	J	3.1	J	2.4	J
POTASSIUM	4770	J	5470	J	5350	J	4240	J	4270	J
SELENIUM	35.0	U	35.0	U	35.0	U	35.0	U	35.0	U
SILVER	10.0	U	10.0	U	10.0	U	0.73	J	10.0	U
SODIUM	17000		25400		24100		16500		16900	
THALLIUM	25.0	U	25.0	U	25.0	U	25.0	U	25.0	U
VANADIUM	5.3	J	50.0	U	0.95	J	3.8	J	3.4	J
ZINC	8.4	J	3.2	J	2.5	J	8.8	J	7.4	J
CYANIDE	10.0	U	10.9		11.2		10.0	U	10.0	U

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Analytical Results (Qualified Data)

Page ____ of ____

Case #: 33011 SDG : ME1289
 Site : BUCYRUS CITY DUMP
 Lab. : BONNER
 Reviewer :
 Date :

Sample Number :	ME1294	ME1295	ME1296	ME1289D	ME1289S					
Sampling Location :	SW-6	SW-7	SW-8	SW-1	SW-1					
Matrix :	Water	Water	Water	Water	Water					
Units :	ug/L	ug/L	ug/L	ug/L	ug/L					
Date Sampled :	6/22/2004	6/22/2004	6/22/2004	6/22/2004	6/22/2004					
Time Sampled :	12:00	12:15	12:40	09:05	09:05					
%Solids :	0.0	0.0	0.0	0.0	0.0					
Dilution Factor :	1.0	1.0	1.0	1.0	1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	321	J	2770	J	267	J	2220		3350	
ANTIMONY	60.0	U	8.3	UJ	60.0	U	60.0	U	77.7	
ARSENIC	10.0	U	10.0	U	10.0	U	3.1	J	33.3	
BARIUM	116	J	139	J	19.2	J	73.1	J	1720	
BERYLLIUM	5.0	U	0.080	J	5.0	U	0.050	J	41.0	
CADMIUM	0.78	J	1.0	J	5.0	U	0.51	J	41.2	
CALCIUM	214000		123000		33100		75100		72900	
CHROMIUM	10.0	U	3.9	J	10.0	U	2.0	J	165	
COBALT	0.96	J	2.9	J	50.0	U	50.0	U	406	
COPPER	3.0	J	18.5	J	3.8	J	3.1	J	211	
IRON	9000	J	4630	J	333	J	1900		2670	
LEAD	4.3	J	91.2		10.0	U	10.0	U	17.3	
MAGNESIUM	67000		65600		12800		19700		18900	
MANGANESE	370	J	417	J	8.0	J	46.9		460	
MERCURY	0.21	J+	0.20	UJ	0.090	UJ	0.20	U	1.3	
NICKEL	7.9	J	10.4	J	2.1	J	4.0	J	411	
POTASSIUM	35400	J	20000	J	1240	J	4610	J	4270	J
SELENIUM	35.0	U	35.0	U	35.0	U	35.0	U	42.7	
SILVER	0.89	J	10.0	U	10.0	U	10.0	U	38.4	
SODIUM	41200		81300		23400		16300		16000	
THALLIUM	25.0	U	25.0	U	25.0	U	25.0	U	42.8	
VANADIUM	50.0	R	5.9	R	1.1	J	5.2	J	407	
ZINC	1240		132		3.3	J	8.9	J	414	
CYANIDE	10.0	U	10.0	U	10.0	U	10.0	U	93.3	

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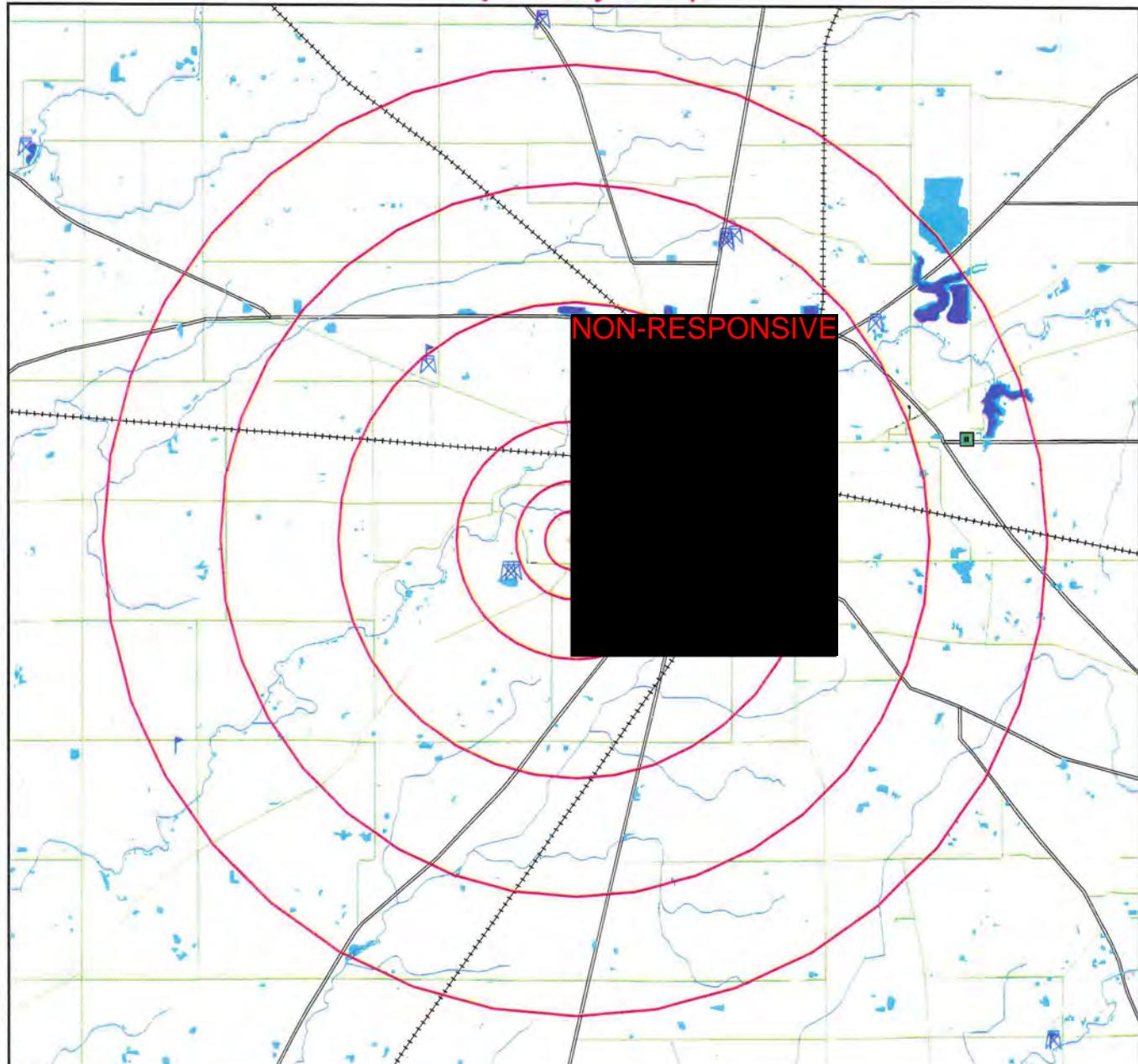
APPENDIX B

GIS MAPS AND DATA

OhioEPA

Division of Emergency & Remedial Response
GEOGRAPHIC INFORMATION SYSTEM 4-MILE RADIUS MAP

Crawford County Bucyrus City Dump



- ◆ Site
- ◆ School
- ◆ Hospital
- ◆ Public Surface Water Systems
- ◆ Public Ground Water Systems
- ◆ US Endangered/Threatened Species
- ◆ Ohio Endangered/Threatened Species

- Wetland Area
- Lakes & Ponds
- Wellhead Protection Area
- Limit of Radius From Site
- County Boundaries

- Rivers & Streams
- Railroad
- State and Federal Highways
- Local Roads
- Municipal Roads



2

0

2 Miles



Division of Emergency & Remedial Response

GEOGRAPHIC INFORMATION SYSTEM 4-MILE RADIUS MAP

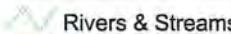
PUBLIC GROUND WATER SYSTEMS

Bucyrus City Dump

NON-RESPONSIVE



- Site
- Public Ground Water Systems
- Community
- Non-Community/Transient
- Non-Community/Non-Transient



- Wellhead Protection Area
- Lakes & Ponds
- Limit of Radius From Site
- County Boundaries

1 0 1 Miles





Division of Emergency & Remedial Response

GEOGRAPHIC INFORMATION SYSTEM 15-MILE RADIUS MAP

NATURAL HERITAGE DATA

Bucyrus City Dump

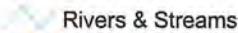
NON-RESPONSIVE



- Site
- ★ US Endangered/Threatened Species
- ★ Ohio Endangered/Threatened Species

Public Surface Water Systems

- Community
- Non-Community/Transient
- Non-Community/Non-Transient



- Wetland Area
- Lakes & Ponds
- Limit of Radius From Site
- County Boundaries



N



Bucyrus City Dump
Population

RADIUS	TOTAL	WHITE	BLACK	INDIAN	ASIAN	HAWAII_PAC	OTHER	HOUSING
3.00 - 4.00	1313	1290	7	2	5	0	10	501
2.00 - 3.00	2739	2665	27	5	9	1	30	1111
1.00 - 2.00	7783	7566	68	26	33	2	89	3233
0.50 - 1.00	2707	2645	16	3	18	1	24	1200
0.25 - 0.50	339	329	2	0	4	0	3	152
0.00 - 0.25	40	38	1	0	0	0	1	18
TOTALS	14921	14533	121	36	69	4	157	6215

Bucyrus City Dump
Natural Heritage Data

ID_	STATUS	DISTANCE	SCI_NAME	COM_NAME
1	State Threatened	7.2804	CAREX BICKNELLII	BICKNELL'S SEDGE
2	Federally Threatened	7.9684	HALIAEETUS LEUCOCEPHALUS	BALD EAGLE
3	State Threatened	7.9905	SMILAX HERBACEA VAR. LASIONEURA	PALE CARRION-FLOWER
4	State Endangered	9.9866	EPIOBLASMA TRIQUETRA	SNUFFBOX
5	State Endangered	10.5313	EPIOBLASMA RANGIANA	NORTHERN RIFFLESHELL
6	State Threatened	10.9328	UNIOMERUS TETRALASMUS	PONDHORN
7	State Endangered	11.4645	GOMPHUS EXTERNUS	PLAINS CLUBTAIL
8	State Threatened	12.3101	CUSCUTA GLOMERATA	GLOMERATE DODDER
9	State Endangered	12.8173	VILLOSA FABALIS	RAYED BEAN
10	State Endangered	12.8227	PLAGIOTHECIUM LATEBRICOLA	LURKING LESKEA
11	State Threatened	13.0808	CUSCUTA GLOMERATA	GLOMERATE DODDER
12	State Endangered	13.6528	EPIOBLASMA TRIQUETRA	SNUFFBOX
13	Federally Threatened	14.0277	HALIAEETUS LEUCOCEPHALUS	BALD EAGLE
14	State Endangered	14.1286	VILLOSA FABALIS	RAYED BEAN
15	State Endangered	14.3386	VILLOSA FABALIS	RAYED BEAN
16	Federally Threatened	14.3537	HALIAEETUS LEUCOCEPHALUS	BALD EAGLE
17	State Endangered	14.4963	VILLOSA FABALIS	RAYED BEAN
18	State Endangered	14.9271	GOMPHUS EXTERNUS	PLAINS CLUBTAIL

Bucyrus City Dump
Ground Water Systems

OBJECTID	PWS_ID_WSR	SYSTEM_NAM	COUNTY	DIST.	SYS_SRC	SYS_TYPE	POP.	SYS_ACT	SRCE_CODE
818	1736912	SUNSET SPRING-NORTH WELL	Crawford	2	G	N	90	A	G
808	1734912	WAYSIDE CHRISTIAN SCHOOL	Crawford	2	G	P	157	A	G
812	1735412	WYNFORD HIGH SCHOOL	Crawford	2	G	P	650	A	G
799	1732912	OSHP-BUCYRUS POST	Crawford	2	G	P	25	A	G
790	1730312	CHECKMATE BOATS-OFFICE B	Crawford	2	G	P	48	A	G
814	1735912	CHECKMATE BOATS-ASSEMBLY	Crawford	2	G	P	28	A	G
792	1730812	CRAWFORD CNTY CONSERVATI	Crawford	2	G	N	160	A	G

Bucyrus City Dump
Ground Water Systems

AVG_PROD	ADDRESS	CITY	ST	ZIP	NON-RESPONSIVE	DIST.
6250	NON-RESPONSIVE	OCEOLA	OH	44860		0.5842
3155		BUCYRUS	OH	44820		0.6235
1900		NEVADA	OH	44849		0.9235
935		BUCYRUS	OH	44820		0.8191
1250		BUCYRUS	OH	44820		0.8534
750		BUCYRUS	OH	44820		0.9035
5600		BUCYRUS	OH	44820		0.1379

APPENDIX C

WELL LOGS

**NO CARBON PAPER
NECESSARY—
SELF-TRANSCRIBING**

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 404201

County Penns Township Ridgway Section of Township 11

NON-RESPONSIVE

CONSTRUCTION DETAILS

Casing diameter 11 1/2 Length of casing 135

Type of screen Herc Length of screen

Type of pump.

Capacity of pump.

Depth of pump setting

Date of completion.

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate.....10 G.P.M. Duration of test.....2 hrs.

Drawdown 8 ft. Date April 12 1970

Static level-depth to water 10 ft.

Quality (clear, cloudy, taste, odor) clear

With Capital

Pump installed by -

WELL LOG*

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

N **NON-RESPONSIVE**

Drilling Firm Nels West Drilling

Address *Franklin Avenue*

Date October 17, 1970

Signed L. H. C. Newell 6/7

*If additional space is needed to complete well log, use next consecutive numbered form.

NO CARBON PAPER
NECESSARY—
SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 387718

NON-RESPONSIVE

CONSTRUCTION DETAILS		BAILING OR PUMPING TEST (Specify one by circling)		
Casing diameter	Length of casing	Test Rate	G.P.M.	Duration of test hrs.
Type of screen	Length of screen	Drawdown	ft.	Date
Type of pump		Static level-depth to water	ft.	
Capacity of pump		Quality (clear, cloudy, taste, odor)		
Depth of pump setting				<i>Sept 1st</i>
Date of completion		Pump installed by		
WELL LOG*			SKETCH SHOWING LOCATION	
Formations	From	To	Locate in reference to numbered State Highways, St. Intersections, County roads, etc.	
Sandstone, shale, limestone, gravel and clay	0 Feet	12 Ft.		
<i>Clay</i>	<i>0</i>	<i>12</i>		
<i>Shale & sand</i>	<i>12</i>	<i>18</i>		
<i>Clay</i>	<i>18</i>	<i>24</i>		
<i>Shale & sand</i>	<i>24</i>	<i>30</i>		
<i>Clay</i>	<i>30</i>	<i>40</i>		
<i>Shale & sand</i>	<i>40</i>	<i>48</i>		
<i>Clay</i>	<i>48</i>	<i>56</i>		
<i>Shale & sand</i>	<i>56</i>	<i>64</i>		
<i>Clay</i>	<i>64</i>	<i>72</i>		
<i>Shale & sand</i>	<i>72</i>	<i>80</i>		
<i>Clay</i>	<i>80</i>	<i>88</i>		
<i>Shale & sand</i>	<i>88</i>	<i>96</i>		
<i>Clay</i>	<i>96</i>	<i>104</i>		
<i>Shale & sand</i>	<i>104</i>	<i>112</i>		
<i>Clay</i>	<i>112</i>	<i>120</i>		
<i>Shale & sand</i>	<i>120</i>	<i>128</i>		
<i>Clay</i>	<i>128</i>	<i>136</i>		
<i>Shale & sand</i>	<i>136</i>	<i>144</i>		
<i>Clay</i>	<i>144</i>	<i>152</i>		
<i>Shale & sand</i>	<i>152</i>	<i>160</i>		
<i>Clay</i>	<i>160</i>	<i>168</i>		
<i>Shale & sand</i>	<i>168</i>	<i>176</i>		
<i>Clay</i>	<i>176</i>	<i>184</i>		
<i>Shale & sand</i>	<i>184</i>	<i>192</i>		
<i>Clay</i>	<i>192</i>	<i>200</i>		
<i>Shale & sand</i>	<i>200</i>	<i>208</i>		
<i>Clay</i>	<i>208</i>	<i>216</i>		
<i>Shale & sand</i>	<i>216</i>	<i>224</i>		
<i>Clay</i>	<i>224</i>	<i>232</i>		
<i>Shale & sand</i>	<i>232</i>	<i>240</i>		
<i>Clay</i>	<i>240</i>	<i>248</i>		
<i>Shale & sand</i>	<i>248</i>	<i>256</i>		
<i>Clay</i>	<i>256</i>	<i>264</i>		
<i>Shale & sand</i>	<i>264</i>	<i>272</i>		
<i>Clay</i>	<i>272</i>	<i>280</i>		
<i>Shale & sand</i>	<i>280</i>	<i>288</i>		
<i>Clay</i>	<i>288</i>	<i>296</i>		
<i>Shale & sand</i>	<i>296</i>	<i>304</i>		
<i>Clay</i>	<i>304</i>	<i>312</i>		
<i>Shale & sand</i>	<i>312</i>	<i>320</i>		
<i>Clay</i>	<i>320</i>	<i>328</i>		
<i>Shale & sand</i>	<i>328</i>	<i>336</i>		
<i>Clay</i>	<i>336</i>	<i>344</i>		
<i>Shale & sand</i>	<i>344</i>	<i>352</i>		
<i>Clay</i>	<i>352</i>	<i>360</i>		
<i>Shale & sand</i>	<i>360</i>	<i>368</i>		
<i>Clay</i>	<i>368</i>	<i>376</i>		
<i>Shale & sand</i>	<i>376</i>	<i>384</i>		
<i>Clay</i>	<i>384</i>	<i>392</i>		
<i>Shale & sand</i>	<i>392</i>	<i>400</i>		
<i>Clay</i>	<i>400</i>	<i>408</i>		
<i>Shale & sand</i>	<i>408</i>	<i>416</i>		
<i>Clay</i>	<i>416</i>	<i>424</i>		
<i>Shale & sand</i>	<i>424</i>	<i>432</i>		
<i>Clay</i>	<i>432</i>	<i>440</i>		
<i>Shale & sand</i>	<i>440</i>	<i>448</i>		
<i>Clay</i>	<i>448</i>	<i>456</i>		
<i>Shale & sand</i>	<i>456</i>	<i>464</i>		
<i>Clay</i>	<i>464</i>	<i>472</i>		
<i>Shale & sand</i>	<i>472</i>	<i>480</i>		
<i>Clay</i>	<i>480</i>	<i>488</i>		
<i>Shale & sand</i>	<i>488</i>	<i>496</i>		
<i>Clay</i>	<i>496</i>	<i>504</i>		
<i>Shale & sand</i>	<i>504</i>	<i>512</i>		
<i>Clay</i>	<i>512</i>	<i>520</i>		
<i>Shale & sand</i>	<i>520</i>	<i>528</i>		
<i>Clay</i>	<i>528</i>	<i>536</i>		
<i>Shale & sand</i>	<i>536</i>	<i>544</i>		
<i>Clay</i>	<i>544</i>	<i>552</i>		
<i>Shale & sand</i>	<i>552</i>	<i>560</i>		
<i>Clay</i>	<i>560</i>	<i>568</i>		
<i>Shale & sand</i>	<i>568</i>	<i>576</i>		
<i>Clay</i>	<i>576</i>	<i>584</i>		
<i>Shale & sand</i>	<i>584</i>	<i>592</i>		
<i>Clay</i>	<i>592</i>	<i>600</i>		
<i>Shale & sand</i>	<i>600</i>	<i>608</i>		
<i>Clay</i>	<i>608</i>	<i>616</i>		
<i>Shale & sand</i>	<i>616</i>	<i>624</i>		
<i>Clay</i>	<i>624</i>	<i>632</i>		
<i>Shale & sand</i>	<i>632</i>	<i>640</i>		
<i>Clay</i>	<i>640</i>	<i>648</i>		
<i>Shale & sand</i>	<i>648</i>	<i>656</i>		
<i>Clay</i>	<i>656</i>	<i>664</i>		
<i>Shale & sand</i>	<i>664</i>	<i>672</i>		
<i>Clay</i>	<i>672</i>	<i>680</i>		
<i>Shale & sand</i>	<i>680</i>	<i>688</i>		
<i>Clay</i>	<i>688</i>	<i>696</i>		
<i>Shale & sand</i>	<i>696</i>	<i>704</i>		
<i>Clay</i>	<i>704</i>	<i>712</i>		
<i>Shale & sand</i>	<i>712</i>	<i>720</i>		
<i>Clay</i>	<i>720</i>	<i>728</i>		
<i>Shale & sand</i>	<i>728</i>	<i>736</i>		
<i>Clay</i>	<i>736</i>	<i>744</i>		
<i>Shale & sand</i>	<i>744</i>	<i>752</i>		
<i>Clay</i>	<i>752</i>	<i>760</i>		
<i>Shale & sand</i>	<i>760</i>	<i>768</i>		
<i>Clay</i>	<i>768</i>	<i>776</i>		
<i>Shale & sand</i>	<i>776</i>	<i>784</i>		
<i>Clay</i>	<i>784</i>	<i>792</i>		
<i>Shale & sand</i>	<i>792</i>	<i>800</i>		
<i>Clay</i>	<i>800</i>	<i>808</i>		
<i>Shale & sand</i>	<i>808</i>	<i>816</i>		
<i>Clay</i>	<i>816</i>	<i>824</i>		
<i>Shale & sand</i>	<i>824</i>	<i>832</i>		
<i>Clay</i>	<i>832</i>	<i>840</i>		
<i>Shale & sand</i>	<i>840</i>	<i>848</i>		
<i>Clay</i>	<i>848</i>	<i>856</i>		
<i>Shale & sand</i>	<i>856</i>	<i>864</i>		
<i>Clay</i>	<i>864</i>	<i>872</i>		
<i>Shale & sand</i>	<i>872</i>	<i>880</i>		
<i>Clay</i>	<i>880</i>	<i>888</i>		
<i>Shale & sand</i>	<i>888</i>	<i>896</i>		
<i>Clay</i>	<i>896</i>	<i>904</i>		
<i>Shale & sand</i>	<i>904</i>	<i>912</i>		
<i>Clay</i>	<i>912</i>	<i>920</i>		
<i>Shale & sand</i>	<i>920</i>	<i>928</i>		
<i>Clay</i>	<i>928</i>	<i>936</i>		
<i>Shale & sand</i>	<i>936</i>	<i>944</i>		
<i>Clay</i>	<i>944</i>	<i>952</i>		
<i>Shale & sand</i>	<i>952</i>	<i>960</i>		
<i>Clay</i>	<i>960</i>	<i>968</i>		
<i>Shale & sand</i>	<i>968</i>	<i>976</i>		
<i>Clay</i>	<i>976</i>	<i>984</i>		
<i>Shale & sand</i>	<i>984</i>	<i>992</i>		
<i>Clay</i>	<i>992</i>	<i>1000</i>		
<i>Shale & sand</i>	<i>1000</i>	<i>1008</i>		
<i>Clay</i>	<i>1008</i>	<i>1016</i>		
<i>Shale & sand</i>	<i>1016</i>	<i>1024</i>		
<i>Clay</i>	<i>1024</i>	<i>1032</i>		
<i>Shale & sand</i>	<i>1032</i>	<i>1040</i>		
<i>Clay</i>	<i>1040</i>	<i>1048</i>		
<i>Shale & sand</i>	<i>1048</i>	<i>1056</i>		
<i>Clay</i>	<i>1056</i>	<i>1064</i>		
<i>Shale & sand</i>	<i>1064</i>	<i>1072</i>		
<i>Clay</i>	<i>1072</i>	<i>1080</i>		
<i>Shale & sand</i>	<i>1080</i>	<i>1088</i>		
<i>Clay</i>	<i>1088</i>	<i>1096</i>		
<i>Shale & sand</i>	<i>1096</i>	<i>1104</i>		
<i>Clay</i>	<i>1104</i>	<i>1112</i>		
<i>Shale & sand</i>	<i>1112</i>	<i>1120</i>		
<i>Clay</i>	<i>1120</i>	<i>1128</i>		
<i>Shale & sand</i>	<i>1128</i>	<i>1136</i>		
<i>Clay</i>	<i>1136</i>	<i>1144</i>		
<i>Shale & sand</i>	<i>1144</i>	<i>1152</i>		
<i>Clay</i>	<i>1152</i>	<i>1160</i>		
<i>Shale & sand</i>	<i>1160</i>	<i>1168</i>		
<i>Clay</i>	<i>1168</i>	<i>1176</i>		
<i>Shale & sand</i>	<i>1176</i>	<i>1184</i>		
<i>Clay</i>	<i>1184</i>	<i>1192</i>		
<i>Shale & sand</i>	<i>1192</i>	<i>1200</i>		
<i>Clay</i>	<i>1200</i>	<i>1208</i>		
<i>Shale & sand</i>	<i>1208</i>	<i>1216</i>		
<i>Clay</i>	<i>1216</i>	<i>1224</i>		
<i>Shale & sand</i>	<i>1224</i>	<i>1232</i>		
<i>Clay</i>	<i>1232</i>	<i>1240</i>		
<i>Shale & sand</i>	<i>1240</i>	<i>1248</i>		
<i>Clay</i>	<i>1248</i>	<i>1256</i>		
<i>Shale & sand</i>	<i>1256</i>	<i>1264</i>		
<i>Clay</i>	<i>1264</i>	<i>1272</i>		
<i>Shale & sand</i>	<i>1272</i>	<i>1280</i>		
<i>Clay</i>	<i>1280</i>	<i>1288</i>		
<i>Shale & sand</i>	<i>1288</i>	<i>1296</i>		
<i>Clay</i>	<i>1296</i>	<i>1304</i>		
<i>Shale & sand</i>	<i>1304</i>	<i>1312</i>		
<i>Clay</i>	<i>1312</i>	<i>1320</i>		
<i>Shale & sand</i>	<i>1320</i>	<i>1328</i>		
<i>Clay</i>	<i>1328</i>	<i>1336</i>		
<i>Shale & sand</i>	<i>1336</i>	<i>1344</i>		
<i>Clay</i>	<i>1344</i>	<i>1352</i>		
<i>Shale & sand</i>	<i>1352</i>	<i>1360</i>		
<i>Clay</i>	<i>1360</i>	<i>1368</i>		
<i>Shale & sand</i>	<i>1368</i>	<i>1376</i>		
<i>Clay</i>	<i>1376</i>	<i>1384</i>		
<i>Shale & sand</i>	<i>1384</i>	<i>1392</i>		
<i>Clay</i>	<i>1392</i>	<i>1400</i>		
<i>Shale & sand</i>	<i>1400</i>	<i>1408</i>		
<i>Clay</i>	<i>1408</i>	<i>1416</i>		
<i>Shale & sand</i>	<i>1416</i>	<i>1424</i>		
<i>Clay</i>	<i>1424</i>	<i>1432</i>		
<i>Shale & sand</i>	<i>1432</i>	<i>1440</i>		
<i>Clay</i>	<i>1440</i>	<i>1448</i>		
<i>Shale & sand</i>	<i>1448</i>	<i>1456</i>		
<i>Clay</i>	<i>1456</i>	<i>1464</i>		
<i>Shale & sand</i>	<i>1464</i>	<i>1472</i>		
<i>Clay</i>	<i>1472</i>	<i>1480</i>		
<i>Shale & sand</i>	<i>1480</i>	<i>1488</i>		
<i>Clay</i>	<i>1488</i>	<i>1496</i>		
<i>Shale & sand</i>	<i>1496</i>	<i>1504</i>		
<i>Clay</i>	<i>1504</i>	<i>1512</i>		
<i>Shale & sand</i>	<i>1512</i>	<i>1520</i>		
<i>Clay</i>	<i>1520</i>	<i>1528</i>		
<i>Shale & sand</i>	<i>1528</i>	<i>1536</i>		
<i>Clay</i>	<i>1536</i>	<i>1544</i>		
<i>Shale & sand</i>	<i>1544</i>	<i>1552</i>		
<i>Clay</i>	<i>1552</i>	<i>1560</i>		
<i>Shale & sand</i>	<i>1560</i>	<i>1568</i>		
<i>Clay</i>	<i>1568</i>	<i>1576</i>		
<i>Shale & sand</i>	<i>1576</i>	<i>1584</i>		
<i>Clay</i>	<i>1584</i>	<i>1592</i>		
<i>Shale & sand</i>	<i>1592</i>	<i>1600</i>		
<i>Clay</i>	<i>1600</i>	<i>1608</i>		
<i>Shale & sand</i>	<i>1608</i>	<i>1616</i>		
<i>Clay</i>	<i>1616</i>	<i>1624</i>		
<i>Shale & sand</i>	<i>1624</i>	<i>1632</i>		
<i>Clay</i>	<i>1632</i>	<i>1640</i>		
<i>Shale & sand</i>	<i>1640</i>	<i>1648</i>		
<i>Clay</i>	<i>1648</i>	<i>1656</i>		
<i>Shale & sand</i>	<i>1656</i>	<i>1664</i>		
<i>Clay</i>	<i>1664</i>	<i>1672</i>		
<i>Shale & sand</i>	<i>1672</i>	<i>1680</i>		
<i>Clay</i>	<i>1680</i>	<i>1688</i>		
<i>Shale & sand</i>	<i>1688</i>	<i>1696</i>		
<i>Clay</i>	<i>1696</i>	<i>1704</i>		
<i>Shale & sand</i>	<i>1704</i>	<i>1712</i>		
<i>Clay</i>	<i>1712</i>	<i>1720</i>		
<i>Shale & sand</i>	<i>1720</i>	<i>1728</i>		
<i>Clay</i>	<i>1728</i>	<i>1736</i>		
<i>Shale & sand</i>	<i>1736</i>	<i>1744</i>		
<i>Clay</i>	<i>1744</i>	<i>1752</i>		
<i>Shale & sand</i>	<i>1752</i>	<i>1760</i>		
<i>Clay</i>	<i>1760</i>	<i>1768</i>		
<i>Shale & sand</i>	<i>1768</i>	<i>1776</i>		
<i>Clay</i>	<i>1776</i>	<i>1784</i>		
<i>Shale & sand</i>	<i>1784</i>	<i>1792</i>		
<i>Clay</i>	<i>1792</i>	<i>1800</i>		
<i>Shale & sand</i>	<i>1800</i>	<i>1808</i>		
<i>Clay</i>	<i>1808</i>	<i>1816</i>		
<i>Shale & sand</i>	<i>1816</i>	<i>1824</i>		
<i>Clay</i>	<i>1824</i>	<i>1832</i>		
<i>Shale & sand</i>	<i>1832</i>	<i>1840</i>		
<i>Clay</i>	<i>1840</i>	<i>1848</i>		
<i>Shale & sand</i>	<i>1848</i>	<i>1856</i>		
<i>Clay</i>	<i>1856</i>	<i>1864</i>		
<i>Shale & sand</i>	<i>1864</i>	<i>1872</i>		
<i>Clay</i>	<i>1872</i>	<i>1880</i>		
<i>Shale & sand</i>	<i>1880</i>	<i>1888</i>		
<i>Clay</i>	<i>1888</i>	<i>1896</i>		
<i>Shale & sand</i>	<i>1896</i>	<i>1904</i>		
<i>Clay</i>	<i>1904</i>	<i>1912</i>		
<i>Shale & sand</i>	<i>1912</i>	<i>1920</i>		

Drilling Firm Keltwood Driller

Address W. 14th Street, New York

*If additional space is needed to complete well log, use next consecutive numbered form.

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Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 405069

CONSTRUCTION DETAILS

Casing diameter 4 1/2" Length of casing 122
Type of screen _____ Length of screen _____
Type of pump _____
Capacity of pump _____
Depth of pump setting _____
Date of completion _____

WELL LOG*

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate..... G.P.M. Duration of test..... hrs.
Drawdown 29' ft. Date _____
Static level-depth to water 25' ft.
Quality (clear, cloudy, taste, odor) Very clear

Pump installed by _____

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

N

-11-

S.

Drilling Firm Conrad F. Sauer

Date 6-22, 1875

Address 112-10 Franklin St.

Signed James F. Johnson

Upper landscape, Chik

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DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

550463

NON-RESPONSIVE

DRILLING FIRM Cimarron Drilling Company DATE 3-17-17
ADDRESS Upper Sandusky SIGNED Paul H. Thomann

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51

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Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

458966

County _____ Township _____ Section of Township _____

Owner Jeanne L. Morris **Address** 1018 S. 1st Street

Location of property _____

Drilling Firm _____

Date _____

Address _____

Signed John C. H. Ladd 5

*If additional space is needed to complete well log, use next consecutive numbered form.

**PLEASE USE PENCIL
OR TYPEWRITER**
DO NOT USE INK.

**State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212**

Nº 327678

County Crawford Township Bucyrus Section of Township.....

Owner Walter Miller Co Address Beechwood, Ohio

Location of property West end of Beaverton on state Rt. U.S. 30

CONSTRUCTION DETAILS			BAILING OR PUMPING TEST
Casing diameter <u>4 1/2</u>	Length of casing <u>71</u>	Pumping Rate <u>2 1/2</u>	G.P.M. Duration of test <u>1</u> hrs
Type of screen	Length of screen	Drawdown <u>42</u>	ft. Date <u>June 26, 1948</u>
Type of pump		Static level-depth to water <u>92</u>	ft.
Capacity of pump		Quality (clear, cloudy, taste, odor) <u>Clear</u>	
Depth of pump setting		Pump installed by	
Date of completion			
WELL LOG*			SKETCH SHOWING LOCATION
Formations Sandstone, shale, limestone, gravel and clay	From	To	Locate in reference to numbered State Highways, St. Intersections, County roads, etc.
<u>Plas.</u>	<u>0 Feet</u>	<u>98 Ft.</u>	<u>N.</u>
<u>g. to G.</u>	<u>40</u>	<u>68</u>	
<u>Water at</u>	<u>12</u>		<u>S. State Rds.</u>
			<u>4530</u>
			<u>Bucyrus</u> <u>Ohio</u>
			<u>W.</u>
			<u>E.</u>
			<u>411</u>
			<u>Perkins Rds.</u>
			<u>SEININGER RIVER</u>
			<u>S.</u>

Drilling Firm

Date: September 11, 1998

Address 111-1st St. 1525

Signed 1/21/98 103-10

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Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

454873

County Gravina Township Bucyrus Section of Township 2

Owner Reidier Phillips Address Bucyrus, Ohio

Location of property Work order of Bureau are ALT US, 30

CONSTRUCTION DETAILS		BAILING OR PUMPING TEST (Specify one by circling)	
Casing diameter	4 1/2	Length of casing	18
Type of screen	Plain	Length of screen	
Type of pump		Static level-depth to water	30
Capacity of pump		Quality (clear, cloudy, taste, odor)	Clear with a trace of sulphur
Depth of pump setting		Pump installed by	
Date of completion			

WELL LOG*

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

N

815

W. Penn Central
RR

E

S

Drilling Firm Karl Wettstein

Address 1000 N. Euclid St.

Date Oct. 7, 1974

54

Signed: *[Signature]*

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State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Geological Survey
Fountain Square
Columbus, Ohio 43224 Phone [REDACTED]

479408

COUNTY Pasco TOWNSHIP BUCYRUS SECTION OF TOWNSHIP
OR LOT NUMBER 3
OWNER Ellie Brown ADDRESS 417 W. Wilbur St., Bucyrus, Ohio
LOCATION OF PROPERTY 1 mi west of Bucyrus on County Rd C 2

DRILLING FIRM Ralph Waller
ADDRESS Bedford, Pa.

ADDRESS Chalford, Glos.

DATE March, 24, 1975
SIGNED Sylvester Holt

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State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

No 342640

County Crawford Township Bucyrus Section of Township 10
Owner Gerald Kishling Address Bucyrus, Ohio Block 42
Location of property 1 1/2 miles west of Bucyrus Section 42

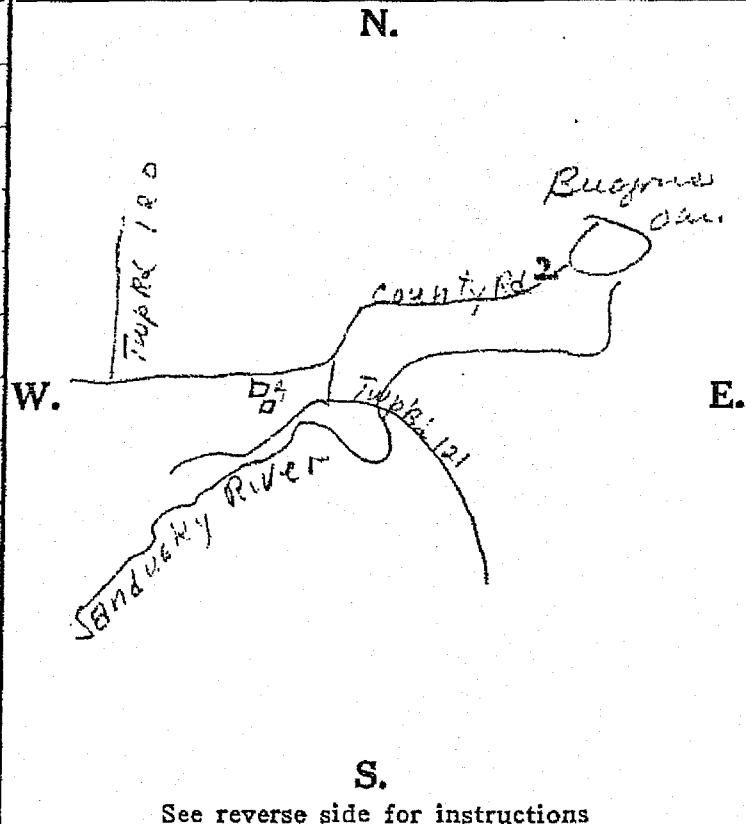
CONSTRUCTION DETAILS		BAILING OR PUMPING TEST
Casing diameter	<u>4 1/2</u>	Length of casing <u>45</u>
Type of screen	<u>None</u>	Length of screen
Type of pump		
Capacity of pump		
Depth of pump setting		
Date of completion		Pump installed by

WELL LOG*

Formations	From	To
Sandstone, shale, limestone, gravel and clay		
<u>Clay</u>	<u>0</u> Feet	<u>39</u> Ft.
<u>Silt & gravel</u>	<u>39</u>	
<u>Clay</u>	<u>39</u>	<u>48 1/2</u>
<u>sand & gravel</u>	<u>48 1/2</u>	<u>48 5/8</u>
<u>Rolling sand, shale</u>	<u>48 5/8</u>	
<u>White Clay</u>	<u>0</u>	<u>38</u>
<u>Marl & sand</u>	<u>38</u>	<u>38 1/2</u>
<u>Clay</u>	<u>38</u>	<u>48 1/2</u>
<u>Sand & gravel</u>	<u>48 1/2</u>	<u>49</u>
<u>Water</u>		
<u>Shale</u>	<u>49 1/2</u>	

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm John C. Kishling
Address 141 West

Date April 22, 1967

Signed Gerald Kishling 56

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DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 379810

County Oregon Township Weynes Section of Township.

Owner Mark Sibley, Esq. Address 35 University Street

Location of property Keweenaw Rd

CONSTRUCTION DETAILS

Casing diameter 4 1/4 Length of casing 48

Type of screen..... Length of screen.....

Type of pump.

Capacity of pump.

Depth of pump setting

Date of completion.

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate..... G.P.M. Duration of test..... hrs.

Drawdown..... ft. Date.

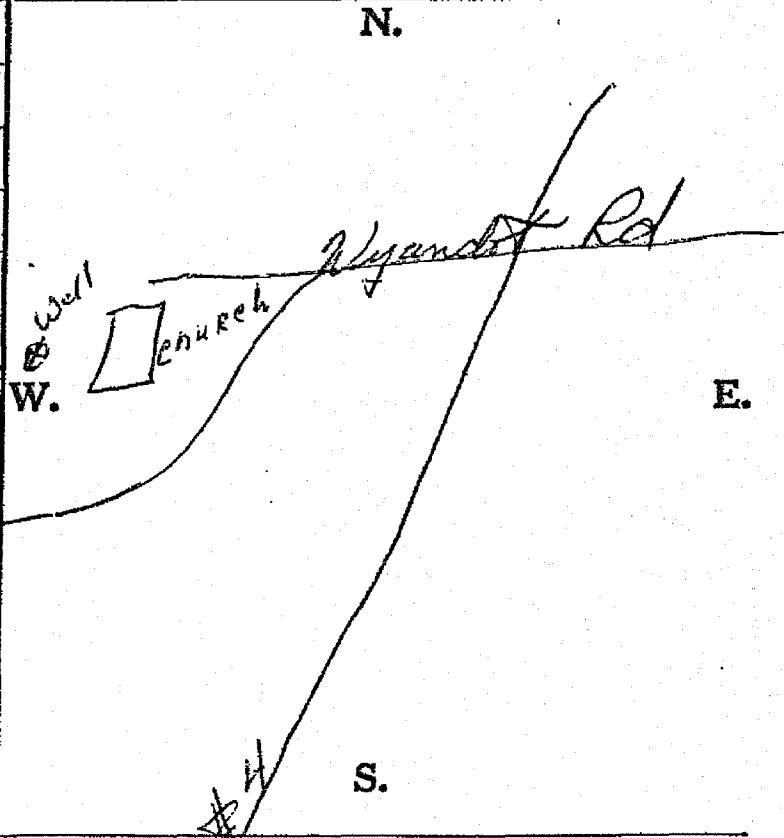
Static level-depth to water.....20 ft.

Quality (clear, cloudy, taste, odor)...

WELL LOG*

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.



Drilling Firm: Bell's Bet Service

Address Macion Street

Date 8-23-71

Signed _____ 43

*If additional space is needed to complete well log, use next consecutive numbered form.

NO CARBON PAPER
NECESSARY—
SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 379811

County, Pawtucket Township, Bucksbee Section of Township.

Owner Wesley C. Grange Address 1000 S. 100 E.

Location of property.....

CONSTRUCTION DETAILS

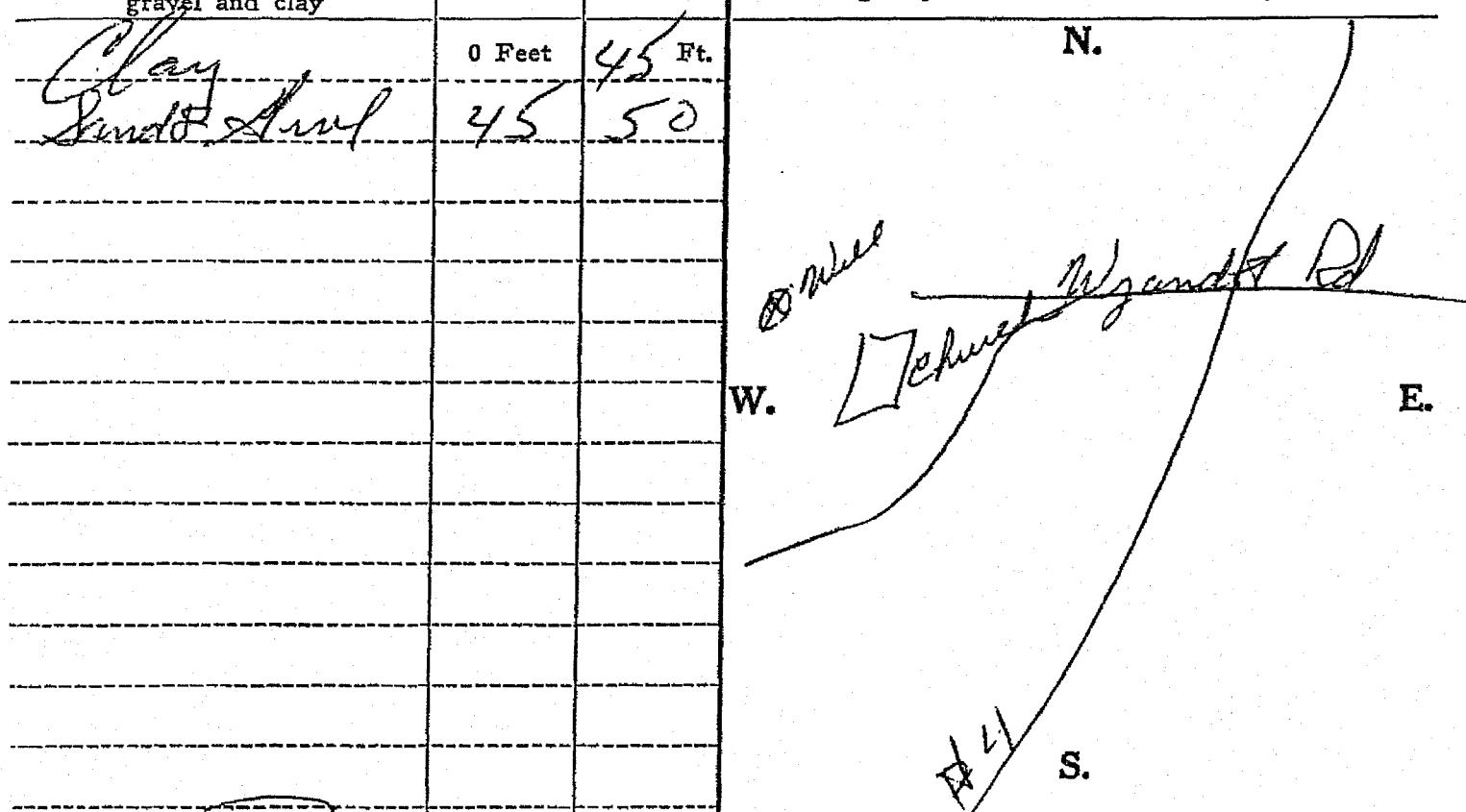
BAILING OR PUMPING TEST
(Specify one by circling)

Casing diameter	<u>4 1/4</u>	Length of casing	<u>50'</u>	Test Rate.....	G.P.M.	Duration of test.....	hrs.
Type of screen.....			Length of screen.....	Drawdown.....	ft.	Date.....	
Type of pump.....			Static level-depth to water.....	<u>20</u>	ft.		
Capacity of pump.....			Quality (clear, cloudy, taste, odor)				
Depth of pump setting.....			<u>Sulphur water</u>				
Date of completion.....			Pump installed by.....				

WELL LOG*

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.



Drilling Firm Diffs Cut Service Date 5-23-71

Address 1140 Main St. Signed Wm. B. Moore 46

*If additional space is needed to complete well log, use next consecutive numbered form.

APPENDIX D

PHOTOGRAPHIC LOG

Appendix D
Photographic Log



Photo #1: Geoprobe sampling location on the dump
Date: June 2, 2004

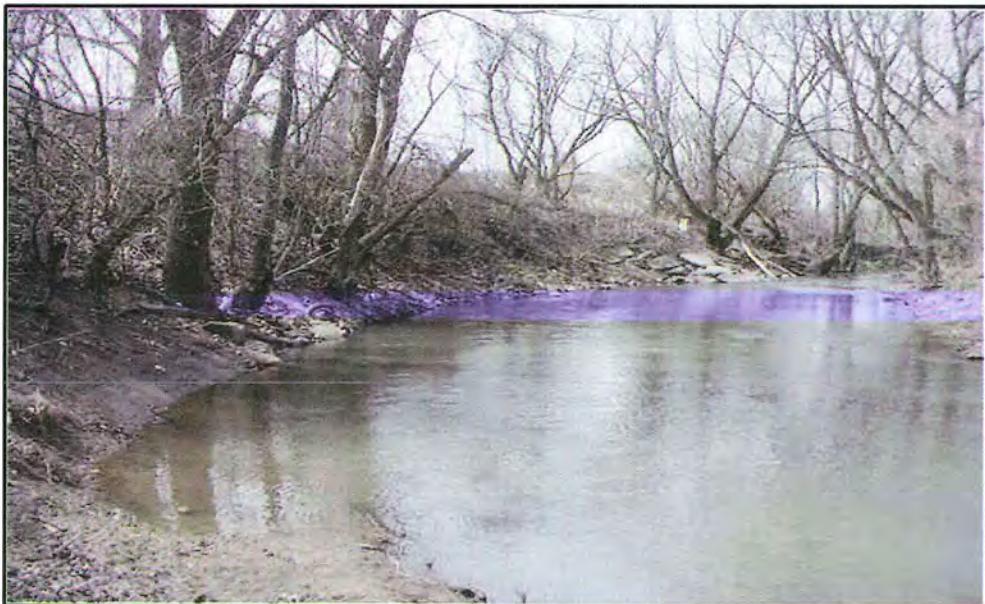


Photo #2: Sandusky River looking downstream from the dump.



Photo #3: Sandusky River dump side looking upstream.

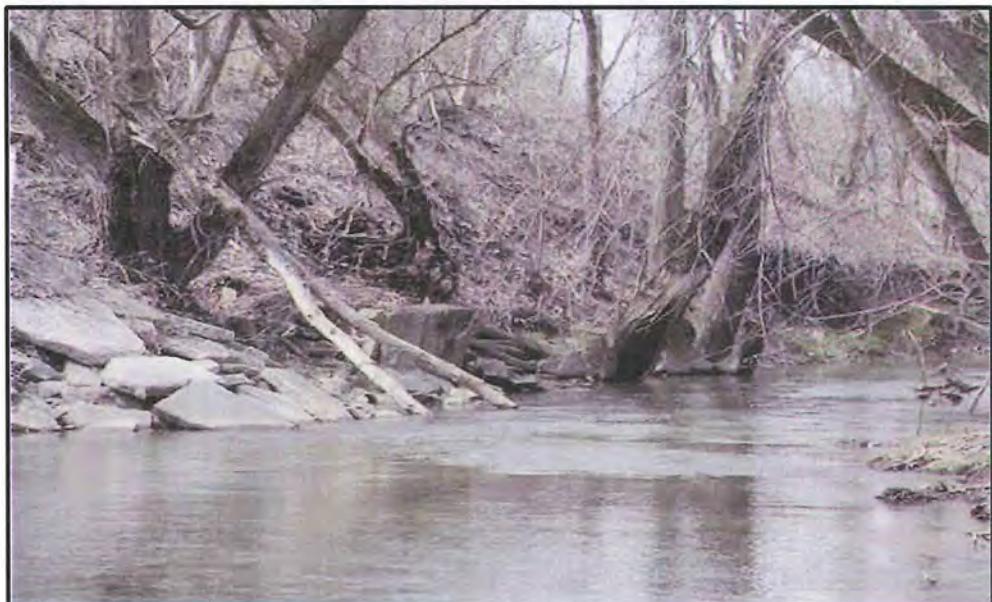


Photo #4: Sandusky River downstream looking at the abandoned sewer outfall on the dump side.



Photo #5: Sandusky River at the abandoned sewer outfall on the dump.



Photo #6: Sandusky River at the dump with visible trash in the bank.



Photo #7: Sandusky River bank at dump with visible leachate.



Photo #8: Sandusky River bank at dump. Visible erosion and leachate.



Photo #9: Sandusky River at dump looking upstream.



Photo #10: Sandusky River at dump with visible erosion.



Photo #11: Sandusky River at dump with exposed barrel.



Photo #12: Sandusky River bank with visible trash and erosion.



Photo # 13: Sandusky River bank and dump.



Photo #14: Sandusky River bank at dump with visible barrels and trash.



Photo #15: Sloping bank to Sandusky River with exposed trash and barrels.

APPENDIX E

TEST BORING RECORDS

Environmental Protection Agency

TEST BORING RECORD

DRILLER Karl F. Wunder

WATER ON COMPLETION _____
 DATE _____ TIME _____
 CASING HAMMER WT. lbs. DROP _____ in.
 SAMPLER HAMMER WT. lbs. DROP _____ in.
 SAMPLER SIZE in. O.D. Casing Size _____ in.
 AUGER SIZE _____ in. ENCOUNTERED WATER _____

HOLE NO. BP1 SURFACE ELEVATION _____

Sheet No. 1 of 1 Sheets
DIVISION OF DRINKING
AND GROUND WATERS

FOR Bucyrus LF

Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402LOCATION S. of WTP, Next to Road
STARTED 06/02/04 COMPLETED

JOB NO.

ELEVATION	DEPTH	Casing Hammer Blows	Dale Mc Lane Geologist	Geologist's Log	Mechanical Analysis	Remarks	Sample Depth	Blow on Sampler
Surface Grass	0			1st 12" wet brown topsoil & roots remainder light brown clay with mottled orange & gray silt seams trace coarse sand last 6"		DRY		
	4'			Light Brown CLAY with 6" silt seams, Weathered Shale fragments 1st 6" moist w/ coarse CAND, oxidized & weathered zone		1st 6" moist		
	8'			A.A. first 2", then gradational change to dense dark gray silt- silty clay w/ shale fragments		moist		
	12'			A.A. then last 1ft, back into brown CLAY, then back to gray SILT @ tip		Last 2' DRY		
	15.5'			A.A. 1st 2' Dark Gray Silty CL w/ shale & LS frag. Last 2' mixed brown CL & gray Silty CL, wet		Last 8"		
	19			A.A. dark Gray Silty CL w/ LS Gravel. Increasing silt content w/ depth. Last 2" Brown CL, then 1" wet gray SAND - silty SAND WASHOUT - SAND / SILT / GRAVEL 1 ft BACK TO GRAY CL		Last 6" MOIST		
	22.5'			Last 1" GRAVEL SAND & SILT		CONFINED SATURATED PUSHED MUD UP ROB		
	25'							
				mike: (redacted)				
				(513) 564-8355				

Environmental Protection Agency

TEST BORING RECORD

DRILLER Karl & Jeff W.
WATER ON COMPLETION _____ 24 HOUR WATER _____
DATE _____ TIME _____ DEPTH _____
CASING HAMMER Wt. _____ lbs. DROP _____ in.
SAMPLER HAMMER Wt. _____ lbs. DROP _____ in.
SAMPLER SIZE _____ in. O.D. Casing Size _____ in.
AUGER SIZE _____ in. ENCOUNTERED WATER _____

HOLE NO. SP 6 SURFACE ELEVATION

FOR Buckeye Landfill

Sheet No. _____ of _____ Sheets
**DIVISION OF DRINKING
AND GROUND WATERS**

**Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402**

LOCATION South of Nature Trail Bridge

STARTED 06/02/04 COMPLETED

ELEVATION	DEPTH	Coring Holes over Bentonite	Date Mc Lane Geologist	Geologist's Log Mechanical Analysis	<input checked="" type="checkbox"/> <input type="checkbox"/>	Remarks	Sample Depth	Blows on Sampler
SIXKES GRASS				Brown mottled grey - orange SILTY CL. with weathered brick, fragments trace glass shards 36' feet.		WET	TRUE	510
	4'			1st 18" WASTE		SATURATED		0.3 - C
				CL, A.A.		SO-03	1715	
	8'			Grey SILTY Saturated 21"		WET		0
				7" SAND & Limestone frags.				
	12'			9" Brown clay, mottled grey SILT				

Environmental Protection Agency

TEST BORING RECORD

UNILLET Jeff & Karl

WATER ON COMPLETION	24 HOUR WATER.		
DATE	TIME	DEPTH	
CASING HAMMER Wt.	lb.	DROP	in.
SAMPLER HAMMER Wt.	lb.	DROP	in.
SAMPLER SIZE	in. O.D.	CASING SIZE	in.
AUGER SIZE	in.	ENCOUNTERED WATER	

HOLE NO. SP 7 SURFACE ELEVATION

FOR Bucyrus Landfill

Steel No. _____ of _____ Steels
**DIVISION OF DRINKING
AND GROUND WATERS**



**Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402**

06/02/2004 19:44 4193733125

ДИТП EPA NWDC

PAGE 84

Environmental Protection Agency

TEST BORING RECORD

Jeff W. Kan

WATER ON COMPLETION..... 24 HOUR WATER
DATE TIME DEPTH ft.
CASING HAMMER WT. lbs. DROP in.
SAMPLER HAMMER WT. lbs. DROP in.
SAMPLER SIZE in. D.D. CASING SIZE in.
AUGER SIZE in. ENCOUNTERED WATER

NOTE NO. 6P-4 SURFACE ELEVATION

FOR Bucyrus Landfill



Sheet No. _____ of _____ Sheets
**DIVISION OF DRINKING
AND GROUND WATERS**

**Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402**

Environmental Protection Agency

TEST BORING RECORD

DRILLER Jeff W. Skinner

WATER ON COMPLETION _____ 24 HOUR WATER
DATE _____ TIME _____ DEPTH _____
CASING HAMMER WL _____ lbs. DRDP _____ in.
SAMPLER HAMMER WL _____ lbs. DRDP _____ in.
SAMPLER SIZE _____ in. O.D. Casing size _____ in.
AUGER SIZE _____ in. ENCOUNTERED WATER _____

NOTE NO. GP 5 SURFACE ELEVATION

FOR Bucyrus Landfill



Set No. _____ of _____ Sheets
**DIVISION OF DRINKING
AND GROUND WATERS**

**Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402**

APPENDIX F

**Sandusky-Bucyrus Assessment Unit of the
Biological and Water Quality Study of the Sandusky River
and Selected Tributaries
2001**

WATERSHED ASSESSMENT UNIT REPORTS

Sandusky-Bucyrus Assessment Unit

The Sandusky-Bucyrus assessment unit (04100011-020) encompasses the drainage area beginning with the headwaters of Paramour Creek to the Sandusky River upstream from Broken Sword Creek (RM 94.48). Biological and habitat assessments were conducted at 27 sites in 2001 and their attainment status is presented in Table 2A. Surface water physical/chemical assessments were conducted at 17 sites. Each site had five sets of grab samples collected at two-week intervals. Each sample had physical measurements recorded in the field and was tested in the lab for inorganic parameters including metals, nutrients and oxygen demand. Four sites had extra samples collected to test for the presence of volatile and semi-volatile organic compounds and two sites were tested for levels of herbicides. Sediment analysis was conducted at five sites. Surface water results that exceeded State of Ohio Water Quality Standards criteria are presented in Table 2B.

Six of 21 sites with drainage areas <50 mi² met the existing or recommended aquatic life use. Two sites partially met and 13 sampled locations were in non-attainment of the designated or recommended use (Table 2B). Six sites with drainage areas >50 mi² represented 22.1 miles of the Sandusky River. Full attainment of the designated Warmwater Habitat (WWH) use was met for 10.4 miles of the stream, 10.3 miles partially met and non-attainment was ascribed to 1.4 miles of stream.

The failure of streams within the assessment unit to attain applicable aquatic life uses and water quality criteria can be largely attributed to agricultural practices within the watershed and pollution from point sources. Point source facilities regulated in the assessment unit are listed in Table 2C. Sedimentation and enrichment were the most common impacts where aquatic life use attainment was not fully met. Two distinct areas impacted by organic loadings were the Sandusky River within the City of Bucyrus due to combined sewer overflows (CSOs) and Westerly Creek within the Village of Crestline due to failed septic systems, urban runoff and the Wastewater Treatment Plant (WWTP). The compound of greatest concern regarding enrichment impacts is phosphate (PO₄) because it is often growth limiting.

Flow data collected by the US Geological Survey on the Sandusky River at Kerstetter Rd. is displayed in Figure 2A. About 38 years of data were used to calculate the flow characteristics. The seven days, 10 years low flow value for May-November is 1.1 cubic feet per second (cfs) and the 80% duration value (flow equaled or exceeded) is 3.5 cfs. Flows were generally near 6 cfs during most of the study, indicating that even under drought conditions, the Sandusky River maintained fairly normal flows for that time of year. The effects of low water were apparent in the smaller tributary streams. Minimal sustained flow during the summer months limited pool depths and availability of riffle habitat at some sites. The channelization, removal of riparian trees and field tiling to facilitate drainage have reduced the volume of water present during dry weather periods, making drought conditions in the streams a much more frequent occurrence. The lack of water movement can exacerbate impacts from organic loading and nutrient enrichment by limiting reaeration potential.

The Sandusky River, Paramour Creek and the PPG Tributary are designated as WWH streams based on previous biological surveys. The 2001 survey is the first time that aquatic life uses have been evaluated using biological and habitat information for the remaining sampled streams within the Sandusky-Bucyrus assessment unit. The upper portion of Grass Run was the only one of the streams that was channelized with little likelihood for recovery and offered minimal instream habitat. It is not realistic to expect typical WWH aquatic communities under these conditions so a Modified Warmwater Habitat (MWH) Aquatic Life Use is recommended. The recommended segment is from the headwaters to Marion-Melmore Rd. (RM 6.0). The presence of a wooded riparian and a natural or recovering stream channel were primary considerations for recommending the WWH use for the remaining tributaries. Many of these sites had at least moderate amounts of instream cover and sinuosity. Sedimentation and substrate embeddedness were the most commonly encountered negative habitat attributes of these streams. A significant loss in habitat function in Loss Creek and the South Fork of Loss Creek occurred due to minimal sustained flow that limited pool depths and availability of riffle habitat.

Allen Run, West North Robinson Run, East North Robinson Run and Grey Eye Creek met the recommended WWH Aquatic Life Use based on fish and macroinvertebrate sampling results.

The PPG Tributary partially met the use at RM 3.7 with marginally good fish condition and a fair macroinvertebrate community. The IBI index score at RM 0.2 was in the poor range. The fish communities were similar but the larger drainage area (4 mi^2) should have supported a more diverse assemblage. Additionally, the occurrence of DELT anomalies occurred at a higher frequency than was observed upstream. These results indicated that the fish community was negatively effected by the discharges from the PPG facility. Conversely, the macroinvertebrate community was in marginally good condition and apparently benefited from increased flow volume. Water quality data indicated impairment from metals, enrichment, elevated bacteria counts and warmer than normal temperatures. The PPG Industries Glass Division generates process and sanitary wastewater and collects stormwater during rain events. Process water enters a flow equalization basin and is treated with an oil skimmer and sand filter. The basin is equipped with a bypass for emergency purposes. Filter backwash is treated in a sludge thickening tank and de-watered using a filter press. Some treated process water is recycled to use as cooling water and any excess is discharged. Sanitary water is treated by two parallel package plants with chlorine disinfection and dechlorination. An onsite electrical transformer is contained in an emergency spill holding tank and rain water that collects is discharged to the storm sewer system. All flows combine and are discharged through a tile under Horning Rd.

Both organism groups failed to meet WWH expectations in East Crestline Creek (Paramour Creek Tributary at RM 2.88). It appeared that water quality rather than habitat degradation was impacting the biology. Urban stormwater is probably the source of most pollution, especially considering the presence of a rail transfer yard and Moyer's Auto Junkyard within the drainage area.

Westerly Creek was in non-attainment upstream and downstream from the Crestline WWTP. This facility treats sewage to a secondary level by counter current aeration and is designed to handle 0.95 million gallons per day (MGD). Flows in excess of this only receive primary treatment and disinfection up to 2.2 MGD. The collection system consists of 60% separate and 40% combined sewers with two lift stations and one CSO just west of Park Ave. About 1% of the service area is not connected to the collection system and these homes are served by on-lot units. This neighborhood is adjacent to the site sampled at Patterson St. (RM 2.41) and the impact was apparent. Water quality evaluated was impaired by enrichment/low dissolved oxygen and elevated bacteria counts. The pollution source is poorly treated sewage from failed on-lot septic systems. The extension of sanitary sewers to serve this area should be investigated. Downstream from the Crestline WWTP at Oldfield Rd. (RM 0.13), the discharge provided increased flow and suspended organic material that benefited filter feeding caddisflies and midges. Subsequently the ICI marginally met WWH expectations at RM 0.1. The fish community declined compared to the upstream site and was predominated by pollution tolerant species resulting in a poor IBI score. Water quality evaluated at this location was impaired by enrichment and elevated bacteria counts. The greatest concern involves phosphorus with a median concentration of 0.81 mg/l, considerably higher than the level recommended in wadeable streams of 0.10 mg/l. Annual loadings (kg/day) from the WWTP over the last 20 years were tracked using the Liquid Effluents Analysis Processing (LEAP) system. This is an Ohio EPA database that stores monthly selfmonitoring data. Results for phosphorus plotted against volume discharged are displayed in Figure 2B. Loadings declined considerably after the facility was upgraded in 1994, but further consideration should be made regarding advanced treatment to remove phosphorus and sewer separation to eliminate hydraulic overloading. The source of the elevated bacteria counts was probably a combination of the failed septic systems located upstream and overflows from the combined sewer system. A fish kill was investigated in Westerly Creek on April 5, 2001. It was determined that a blockage in the sewage collection system was causing a bypass.

Grass Run was in non-attainment of the recommended MWH use for the reach between Lincoln Hwy. (RM 10.6) and Bucyrus-Nevada Rd. (RM 8.4). Macroinvertebrate condition was poor at both locations. The fish community was in poor condition at RM 10.6 but met the use at RM 8.4. Stresses to the aquatic community likely included reduced dry weather flow, siltation, excessive nutrients and low dissolved oxygen levels resulting from agricultural practices within the drainage area. The Wynford Local School WWTP discharges to Grass Run upstream from Lincoln Hwy., but it should not have much of an impact because it is a new unit and discharges seasonally. Water quality evaluated at Bucyrus-Nevada Rd. verified that there was impairment from low dissolved oxygen. Enrichment was still indicated in the aquatic community at TR 59 (RM 3.4), but improved habitat and gradient benefited both the macroinvertebrate and fish communities. Full attainment of the WWH aquatic life use was documented, however, the reach is subjected to excessive nutrients from agricultural runoff and home septic systems. Water quality sampling indicated low dissolved oxygen was still a problem. The median phosphorus concentration was 0.11 mg/l, slightly higher than the level recommended in headwater streams of 0.08 mg/l.

None of the Paramour Creek sites attained the designated WWH use. A lack of sustained flow exacerbated the effects of nutrient enrichment and limited habitat related to channelization and prevented the establishment of warmwater fish and macroinvertebrate faunas from the headwaters to RM 2.9. The macroinvertebrate community was significantly improved at RM 1.5 compared with upstream, but the fish community indices scored in the poor range. It was apparent that despite moderate improvements in the habitat condition, sedimentation and absence of typical pool/riffle/run development due to past channelization limited diversity in the fish community. Individuals of only seven fish species were collected and the majority were pollution tolerant. Water quality data in Paramour Creek indicated impairment was caused by enrichment/low dissolved oxygen, elevated ammonia, elevated bacteria and warmer than normal temperatures. The poorest quality was documented at the headwater site at Finnegan Rd. (RM 6.31). Results were typical of streams polluted by sources such as failed septic systems or livestock manure. Conditions improved downstream, but enrichment is much more of a concern at Nazor Rd. (RM 1.50) below the confluence of Westerly Creek. A herbicide test performed at this location quantified the presence of atrazine and metolachlor at 0.79 and 0.21 $\mu\text{g/l}$, respectively. Not much information is available on what effect low levels of these compounds have on aquatic life. Atrazine is a concern in drinking water supplies and has a maximum contaminant level of 3.0 $\mu\text{g/l}$.

South Fork Loss Creek and the headwaters of Loss Creek had adequate habitat but the streams were very shallow which reduced the functionality of the available cover to support warmwater fish and macroinvertebrate assemblages. Additionally, elevated nutrients were indicated at RM 4.6 on Loss Creek in the predominance of white suckers and the low diversity of macroinvertebrates collected. Agricultural runoff and residential septic systems were likely sources of enrichment. The biocriteria scores for Loss Creek at RM 4.6 did not meet WWH expectations and the South Fork Loss Creek partially attained the use. Attainment of WWH expectations was documented at RM 1.0 on Loss Creek and represented significant improvement in the fish community. However, the wide shallow condition of the stream was still probably hampering the development of a more robust fish community. Water quality sampling at this site revealed conditions impaired mainly by low dissolved oxygen.

The Bucyrus WWTP treats sewage to a secondary level by activated sludge aeration and is designed to handle 3.4 MGD. Flows in excess of the design capacity only receive primary treatment and disinfection up to 6.0 MGD. Flows above the hydraulic capacity activate CSOs and, on occasion, a raw bypass at the head of the plant. The collection system consists of 40% separate sewers and 60% combined sewers with 16 CSOs. Bucyrus submitted a CSO Operational Plan to the Ohio EPA in 1998 and has been trying to identify problem areas in the collection system with cameras. The city does not have an Ohio EPA approved pre-treatment program. This should be immediately addressed, especially considering the discovery that large amounts of mercury were disposed into the sewer from the General Electric Lamp Plant. This facility reported in an annual Toxic Release Inventory of the disposal of 49 pounds in 2000 and 19.8 pounds in 2001. An Indirect Discharger Permit may be appropriate for this facility.

The Bucyrus CSOs were identified by the Ohio EPA as a significant source of organic load to the Sandusky River in 1990 (Biological and Water Quality Study of the Sandusky River and Selected Tributaries, Technical Report EAS/1991-6-2). The 2001 sampling demonstrated that little has changed. The WWH use was partially met at sites sampled upstream from Bucyrus. The MIwb score was negatively effected by the presence of large carp. IBI scores at least marginally met WWH expectations. ICI scores were in the exceptional range indicating that water quality was relatively good. Water quality data indicated that impairment was caused by enrichment/low dissolved oxygen and warmer than normal temperatures. Enrichment was greatly effected by point sources in Crestline, but nonpoint sources should not be over looked. A herbicide test at Locust Grove Rd. (RM 127.70) quantified the presence of atrazine and metolachlor at 0.95 and 0.28 µg/l, respectively. Not many dissolved oxygen readings measured by grab sample exceeded the criterion, but continuous monitors revealed that oxygen levels were very poor when evaluated over a diel period. These units record hourly measurements for 48 hours. Results obtained from grab samples are displayed in Figure 2C along with the average criteria that apply (temperature criterion valid June 16-September 15). The continuous monitors were deployed on July 24, 2001 and their results are displayed in Figure 2D. Phosphorus concentrations were mostly above the target value for small rivers and the results are displayed in Figure 2E. Along the reach where the CSOs are located, the Sandusky River was also negatively effected by siltation and embeddedness. Fish and macroinvertebrate indices fell into the fair to poor range at RM 111.2. Black septic sediment and sewage fungus were observed along the margins of the stream. The degree that the fish and macroinvertebrates communities were depressed compared with ecoregional expectations and conditions documented upstream was beyond what is attributable to a limited habitat. The number of mayfly and caddisfly taxa (relatively pollution sensitive groups) collected from the natural substrates declined from 16 at Kiess Rd. (RM 116.2) to 6 at RM 111.2 and fewer than half as many fish species were recorded at RM 111.2 compared to RM 116.2.

No further impact from the Bucyrus WWTP was expressed in the fish or macroinvertebrate results downstream from the plant at Kerstetter Rd. (RM 110.43). Partial attainment of the WWH use was documented since IBI marginally met WWH expectations and the ICI and MIwb were in the fair range. Full attainment was documented for 10.4 miles of the Sandusky River upstream from the confluence of Broken Sword Creek, the terminus of this assessment unit. Water quality data indicated that impairment was caused by the same conditions (enrichment/low dissolved oxygen and warm temperatures) but also by elevated bacteria levels. A continuous monitor deployed at Kerstetter Rd. on July 24, 2001 is displayed in Figure 2F and it revealed that oxygen levels were depressed below the average WWH criterion for nearly the entire period of record. The level of phosphorus spikes downstream from the WWTP because its concentration is high in the effluent. Annual phosphorus loadings (kg/day) from the WWTP over the last 20 years were tracked using the LEAP database. Results plotted against volume discharged are displayed in Figure 2G. Sites bracketing the WWTP discharge were also tested for the presence of volatile and semi-volatile organic compounds and none were detected. Significant upgrades made to the treatment plant in recent years have greatly improved effluent quality. However, major rehabilitation of the collection system to separate sewers and eliminate CSOs will be required to achieve attainment in the river.

Sediment quality was evaluated at four sites on the Sandusky River and one on Paramour Creek. Physical attributes that were measured included percent particle size distribution, solids and organic carbon. Chemical attributes that were measured included metals, volatile and semi-volatile organic compounds, pesticides and polychlorinated biphenyls (PCB). Results for metals varied widely and are presented in Table 2D. No volatile, pesticide, or PCB compounds were detected in any of the samples. Several semi-volatile compounds were detected and most were classified as polycyclic aromatic hydrocarbons (PAH), except for low levels of bis (2-ethylhexyl) phthalate in four samples. Phthalates are added to plastics to make them softer and are a common contaminant in the environment. PAH compounds are a concern because several have been documented to cause skin cancer in lab animals and are strongly suspected human carcinogens. They are commonly the byproducts of fossil fuel combustion and are contained in substances such as creosote and coal tar.

PAHs were identified as a problem in the Sandusky River around the Bucyrus area in 1990. Fortunately, large areas of deep sediment deposits are not common in the Sandusky River. Most deposits were in isolated pockets of deeper pools or in eddies along the river bank. This should minimize any ecological impacts from elevated contaminant levels since they are not common and can be avoided by aquatic life. Background conditions in 2001 were established at Kiess Rd. The sample consisted of 75.1% sand, 24.9% silt and clay, 1.7% organic carbon and 67.9% solids. Most metals were ranked as non-elevated or were below the reporting limit. Although a few tentatively identified compounds were reported in the semi-volatile organic scan, no priority pollutants were detected. Tentative compounds are matched by a computer library system and the concentrations are considered estimated. The impact from CSOs was evaluated just upstream from the Bucyrus WWTP outfall. The sample consisted of 84.3% sand, 15.7% silt and clay, 2.4% organic carbon and 64.9% solids. Most metals were ranked as non-elevated or were below the reporting limit, except mercury was detected at 0.238 mg/kg. This exceeded the TEC of 0.18 mg/kg. The source of this mercury is likely the General Electric facility mentioned above. The total PAH concentration was 16.5 mg/kg at this location in 1990 and increased to 24.05 mg/kg in 2001. This exceeded both the TEC of 1.61 mg/kg and the PEC of 22.8 mg/kg. The impact from wastewater effluent was evaluated at Kerstetter Rd. (RM 110.43). The sample consisted of 62.4% sand, 37.6% silt and clay, 3.8% organic carbon and 45.7% solids. Several metals were considered elevated or highly elevated and the results for copper, lead, zinc and mercury all exceeded respective TEC levels. This sample had the highest mercury concentration documented at 0.701 mg/kg. The total PAH concentration was 21.46 mg/kg. Recovery was evaluated at Shupp Rd. (RM 105.76). The sample consisted of 57.9% sand, 42.1% silt and clay, 3.0% organic carbon and 49.1% solids. Mercury continued to be a concern at a concentration of 0.223 mg/kg. The total PAH concentration dropped to 2.57 mg/kg. A significant source of PAHs in this area is probably stormwater discharged from CSOs, especially where rail yards are present because of the use of creosote to preserve timbers. Automobile fluids and residue from incomplete combustion of gasoline are other common sources of PAHs. The disposal of mercury into the Bucyrus sewer system needs to be discontinued. The Ohio Department of Health advises that meals of largemouth bass caught in the Sandusky River be limited to one per month because of mercury levels. The meal advice for carp is one per week and channel catfish one per month because of PCB levels. This is especially a concern due to the popularity of sport fishing

EAS/2003-4-6

2001 Sandusky River TSD

May 21, 2003

in the area.

The Paramour Creek site at Nazor Rd. (RM 1.50) was sampled to evaluate wastewater impacts from both the Crestline WWTP and PPG Industries as well as urban and rural runoff. The sample consisted of 58.6% sand, 41.4% silt and clay, 2.3% organic carbon and 53.6% solids. No PCBs, pesticides, or volatile compounds were detected. Several metals were considered elevated or highly elevated and the results for chromium, copper and zinc all exceeded respective TEC levels. Three PAHs were detected at a total concentration of 2.91 mg/kg, a level which exceeded the TEC.

Table 2A. Aquatic life use attainment status of the Sandusky-Bucyrus assessment unit (headwaters to upstream Broken Sword Creek), June-October, 2001. The Index of Biotic Integrity (IBI), Modified Index of Well Being (MIwb) and Invertebrate Community Index (ICI) scores are based on the performance of fish (IBI, MIwb) and macroinvertebrate communities (ICI). The Qualitative Habitat Evaluation Index (QHEI) is a measure of the ability of the physical habitat to support biological communities.

River Mile Invertebrate/Fish	IBI	MIwb	ICI ^a	QHEI	Attainment Status ^b	Location
<i>Sandusky River</i>						
	<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>					
127.8/127.8	36 ^{ns}	7.5*	42	82.0	Partial	TR 13, Lower Leesville Rd.
120.8/120.0	37 ^{ns}	7.1*	48	57.0	Partial	CR 55, Locust Grove Rd.
116.2/114.9	40	7.6*	48	60.5	Partial	TR 82, Kiess Rd.
111.2/111.2	24*	6.0*	22*	44.0	NON	Ust. Bucyrus WWTP
110.4/110.4	36 ^{ns}	7.2*	18*	75.0	Partial	CR 121, Kerstetter Rd.
105.8/103.7	37 ^{ns}	9.0	VG	74.5	Full	TR 128, Shupp Rd.
98.7/98.7	44	9.0	44	82.5	Full	SR 231
<i>Paramour Creek</i>						
	<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>					
6.3/6.3	26*	NA	20*	35.0	NON	TR 176, Finnegan Rd.
4.8/---	28*	NA	---	30.0	(NON)	SR 61
---/2.9	---	---	Fair*	---	(NON)	Krichbaum Rd.
1.5/1.5	20*	3.6*	G	53.0	NON	TR 48, Nazor Rd.
<i>Paramour Creek tributary @ RM 5.13 (PPG trib.)</i>						
	<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>					
3.7/3.7	36 ^{ns}	NA	30*	39.0	Partial	PPG park, Ust. outfall trib.
0.2/0.2	26*	NA	MG	37.5	NON	TR 228, Hook Rd.
<i>Paramour Creek tributary @ RM 2.88 (East Crestline Creek)</i>						
	<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>					
0.1/0.1	20*	NA	F*	61	NON	TR 167, Cayer Rd.
<i>Paramour Creek tributary @ RM 1.92 (Westerly Creek)</i>						
	<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>					
2.4/2.4	34*	NA	12*	60.0	NON	Patterson St.
0.2/0.1	26*	NA	32 ^{ns}	66.5	NON	Oldfield Rd.

Table 2A. Continued.

River Mile Invertebrate/Fish	IBI	MIwb	ICI ^a	QHEI	Attainment Status ^b	Location
<i>Allen Run</i>						
						<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>
1.2/1.2	42	NA	MG ^{ns}	48.5	Full	CR 35, Crestline (Boyer) Rd.
<i>Loss Creek</i>						
						<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>
4.6/4.6	<u>26</u> *	NA	Fair	54.0	NON	SR 598
1.0/1.1	38 ^{ns}	NA	G	75	Full	TR 44, Biddle (Dice) Rd.
<i>Loss Creek tributary @ RM 2.98 (South Fork Loss Creek)</i>						
						<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>
0.1/0.1	<u>20</u> *	NA	G	61	NON	TR 178, Loss Creek Rd.
<i>Sandusky River tributary @ RM 122.09 (East North Robinson Run)</i>						
						<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>
0.9/0.8	40	NA	G	64	Full	CR 49, Remlinger Rd.
<i>Sandusky River tributary @ RM 121.19 (West North Robinson Run)</i>						
						<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>
0.2/0.2	40	NA	G	55.5	Full	TR 45, Stetzer Rd.
<i>Grass Run</i>						
						<i>Eastern Corn Belt Plains (ECBP) - MWH Use Designation (Recommended)</i>
10.6/10.6	<u>26</u>	NA	P*	19.5	NON	CR 330, Lincoln Highway
8.4/9.1	34	NA	P*	31.5	NON	From CR 2
<i>Gray Eye Run</i>						
						<i>Eastern Corn Belt Plains (ECBP) - WWH Use Designation</i>
1.3/1.3	44	NA	G	45	Full	SR 231

Table 2B. Values obtained from surface water grab samples collected in the Sandusky-Bucyrus Assessment Unit in 2001 that exceeded State of Ohio Water Quality Standards criteria (Chapter 3745-1 of the Administrative Code). Each site had five sets of samples collected at two-week intervals. Assigned stream use designations (3745-1-12)¹ that are linked to statewide water quality criteria (3745-1-07)² are listed. Lake Erie Basin Human Health and Wildlife Criteria (3745-1-33) and Tier I and Tier II Limits (3745-1-36) apply to all waters in the study area. Units are mg/l for dissolved oxygen (DO) and ammonia ($\text{NH}_3\text{-N}$), °Celsius for temperature (T), colonies/100 ml for fecal coliform (FC) and µg/l for copper (Cu) and iron (Fe). Strontium is not included because 72 of 89 values (80.9%) exceeded Tier II limits.

Mile	Parameter (value)
Sandusky River (WWH, PCR, AWS)	
127.80	T (23.4 †)
120.82	T (23.2 †); DO (4.2 †)
116.18	T (22.7 †); DO (4.2 †); FC (1200 ‡)
111.20	T (22.5 †); DO (3.9 ‡, 1.5 ‡)
110.43	T (22.4 †); DO (4.0 †, 3.5 ‡, 4.1 †); FC (1100 ‡)
105.76	DO (4.3 †); FC (1200 ‡)
98.69	T (22.4 †); FC (1200 ‡)
Grass Run (WWH, PCR, AWS)	
8.36	DO (4.3 †, 3.7 ‡)
3.42	DO (3.7 ‡, 4.8 †); FC (1200 ‡)
Loss Creek (WWH, PCR, AWS)	
0.96	T (22.8 †); DO (3.0 ‡, 3.4 ‡)
Paramour Creek (WWH, PCR, AWS)	
6.31	T (23.6 †); DO (4.6 †, 3.0 ‡); $\text{NH}_3\text{-N}$ (1.71 †); FC (>10000 ‡‡)
4.78	T (28.3 ‡, 27.9 †); FC (1300 †)
1.50	T (24.3 †)
Westerly Creek (WWH, PCR, AWS)	
2.41	T (23.0 †); DO (4.7 †, 3.3 ‡); FC (>10000 ‡‡)
0.13	T (23.8 †); FC (1200 †, 1800 †)
PPG Tributary (WWH, SCR, AWS)	
3.80	T (29.5 ‡); Cu (13 ‡); FC (>10000 ‡)
0.18	T (23.7 †); Fe (5970 ^{aws}); FC (7900 †)

¹ Aquatic Life Habitat: warmwater (WWH); Recreation: primary contact (PCR), secondary contact (SCR); Water Supply: agricultural (AWS)

² aquatic life outside mixing zone maximum (‡), aquatic life outside mixing zone average (†), recreation outside mixing zone maximum (‡‡), recreation outside mixing zone average (‡†), agriculture outside mixing zone average (^{aws})

Table 2C. Facilities regulated by the National Pollutant Discharge Elimination System located in the Sandusky-Bucyrus Assessment Unit.

Facility Name	Ohio EPA Permit Number	Receiving Stream	River Mile	Description
Crestline Water Treatment Plant	2IY00092-001	Unnamed Trib Paramour Creek Sandusky River	129.89	softener backwash treated by a sand filter
PPG Ind., Glass Division	2IE00004-001	"PPG" Tributary Paramour Creek	5.13	combined flows from 601, 602, 603 and stormwater
PPG Ind., Glass Division	2IE00004-601			process cooling water treated by an oil-water separator and sand filter
PPG Ind., Glass Division	2IE00004-602			sanitary sewage treated by a package plant
PPG Ind., Glass Division	2IE00004-603			electrical substation spill containment sump
Crestline Wastewater Treatment Plant	2PC00006-001	Westerly Creek Paramour Creek	0.50 1.92	sanitary sewage treated by a counter current aeration system
Crestline Wastewater Treatment Plant	2PC00006-009	Westerly Creek		combined sewer overflow
Crawford County Landfill	2IN00127-001	Unnamed Trib Sandusky River	121.19	stormwater treated by a settling pond
Crawford County Landfill	2IN00127-002	Unnamed Trib Sandusky River	121.19	stormwater treated by a settling pond
Crawford County Landfill	2IN00127-003	Unnamed Trib Sandusky River	121.19	stormwater treated by a settling pond
Ranchwood Mobile Home Park	2PY00029-001	Unnamed Trib Sandusky River	121.19	sanitary sewage treated by a package plant
Linlare Village	2PG00089-001	Unnamed Trib Sandusky River	117.87	sanitary sewage treated by a package plant

Table 2C continued.

Facility Name	Ohio EPA Permit Number	Receiving Stream	River Mile	Description
Timken Co.	2IC00046-001	Unnamed Trib Sandusky River (Bucyrus Reservoir #2)	1.55 116.32	process cooling water treated by an oil-water separator, sand filter and settling ponds
Bucyrus WTP	2IW00020-001	Sandusky River	113.40	lime sludge treated by settling lagoons
BP Oil, Bucyrus Bulk Plant	2IN00172-001	Sandusky River (via storm tile)		stormwater treated by an oil-water separator and settling pond
Bucyrus Wastewater Treatment Plant	2PD00021-001	Sandusky River	111.00	sanitary sewage treated by an activated sludge aeration system
Bucyrus Wastewater Treatment Plant	2PD00021-002	Sandusky River	111.00	raw bypass
Bucyrus Wastewater Treatment Plant	2PD00021-003, 007-009, 015-026	Sandusky River		combined sewer overflow
Bucyrus Wastewater Treatment Plant	2PD00021-027	Unnamed Trib Sandusky River		combined sewer overflow
Swift-Eckrich, Inc.	2IH00088-001	Sandusky River (via storm tile)	98.70	sanitary sewage treated by a package plant
Wynford Local School	2PT00028-001	Grass Run Sandusky River	96.61	sanitary sewage treated by a package plant

Table 2D. Metal concentrations in sediment collected from the Sandusky-Bucyrus Assessment Unit in 2001. Values preceded by a < were below the reporting limit. Those preceded by a (†) exceeded the threshold effect concentration described by MacDonald et al (2000). Relative concentrations are ranked based on a system developed by Ohio EPA. [^a non-elevated; ^b slightly elevated; ^c elevated; ^d highly elevated; ^e extremely elevated]

Sandusky River at RM 116.18- Kiess Rd.

Al	Ba	Ca	Cr	Cu	Fe	Pb	Mg	Mn
14800 ^b	85.2 ^a	9410	<16	8.8 ^a	13400 ^a	<21	4090	267 ^a
Ni	K	Na	Sr	Zn	Hg	As	Cd	Se
<21	3660	<2630	57	58.1 ^a	<0.031	5.45 ^a	0.244 ^a	<1.05

Sandusky River at RM 111.20- Upstream Bucyrus WWTP

Al	Ba	Ca	Cr	Cu	Fe	Pb	Mg	Mn
7610 ^a	59.2 ^a	14000	<15	18.7 ^a	9650 ^a	32 ^a	4830	107 ^a
Ni	K	Na	Sr	Zn	Hg	As	Cd	Se
<20	2100	<2520	64	90.5 ^a	† 0.238	4.30 ^a	0.408 ^a	<1.01

Sandusky River at RM 110.43- Kerstetter Rd.

Al	Ba	Ca	Cr	Cu	Fe	Pb	Mg	Mn
23900 ^d	163 ^c	25200	31 ^c	† 48.2 ^d	21100 ^a	† 44 ^a	8020	254 ^a
Ni	K	Na	Sr	Zn	Hg	As	Cd	Se
<30	6730	<3710	121	† 177 ^c	† 0.701	9.15 ^a	0.673 ^b	<1.48

Sandusky River at RM 105.76- Shupp Rd.

Al	Ba	Ca	Cr	Cu	Fe	Pb	Mg	Mn
21500 ^c	124 ^b	18600	22 ^b	18.5 ^a	17600 ^a	<29	6960	449 ^b
Ni	K	Na	Sr	Zn	Hg	As	Cd	Se
<29	5660	<3640	102	104 ^b	† 0.223	7.42 ^a	0.477 ^a	<1.45

Paramour Creek at RM 1.50- Nazor Rd.

Al	Ba	Ca	Cr	Cu	Fe	Pb	Mg	Mn
24800 ^d	133 ^b	10200	† 49 ^d	† 37.7 ^c	18400 ^a	<27	4660	266 ^a
Ni	K	Na	Sr	Zn	Hg	As	Cd	Se
<27	5650	<3390	77	† 292 ^d	0.096	8.05 ^a	0.669 ^b	<1.36

EAS/2003-4-6

2001 Sandusky River TSD

May 21, 2003

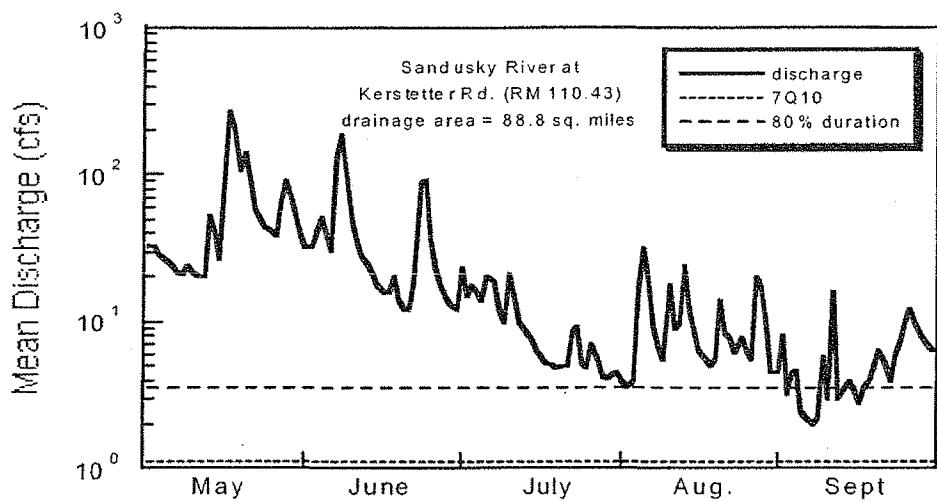


Figure 2A. Flow data collected by the US Geological Survey on the Sandusky River at Kerstetter Rd., May 1 to September 30, 2001.

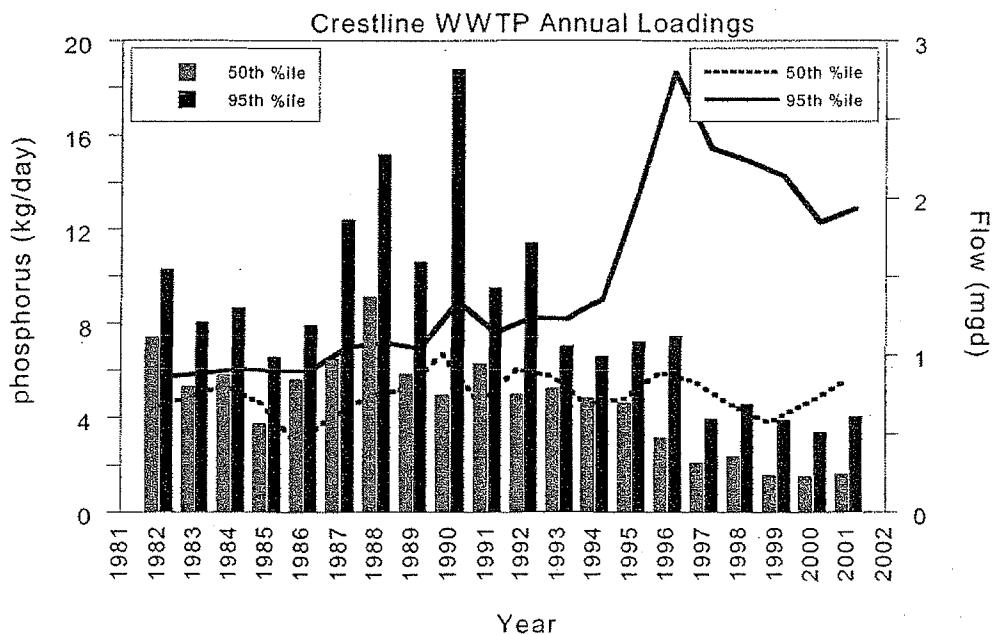


Figure 2B. Annual phosphorus loadings (kg/day) and flow from the Crestline WWTP, 1982-2001.

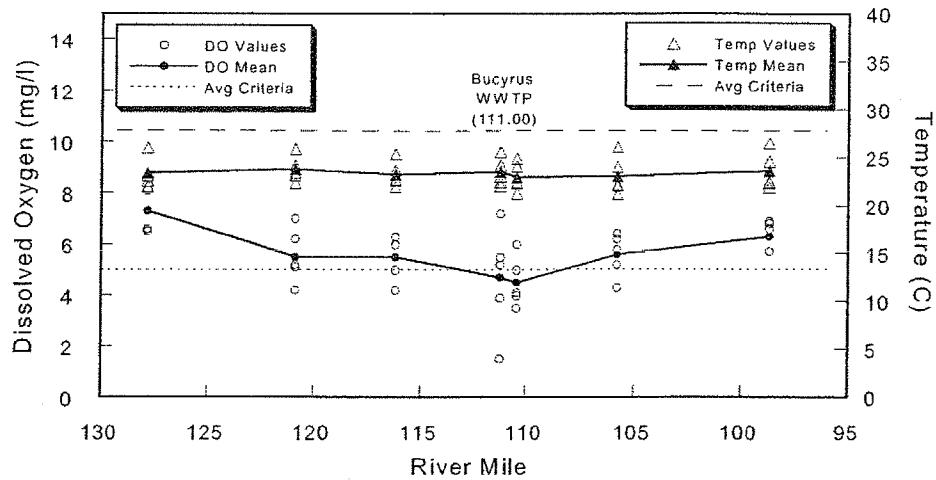


Figure 2C. Sandusky River dissolved oxygen and temperature results within the Sandusky-Bucyrus assessment unit (04100011-020), June - October, 2001. Temperature criterion valid June 16-September 15.

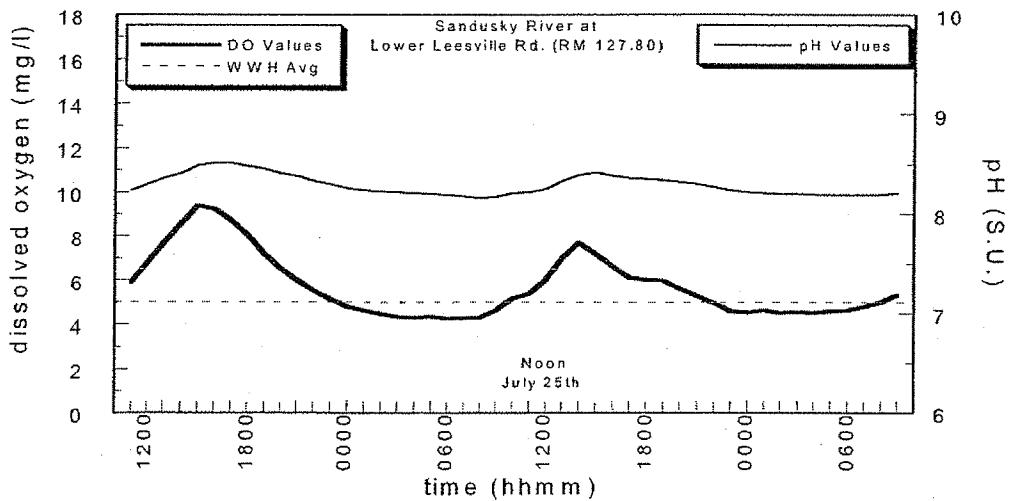


Figure 2D. Dissolved oxygen and pH values from the Sandusky River at Lower Leesville Rd. (RM 127.8) recorded using continuous monitors, July 24-26, 2001.

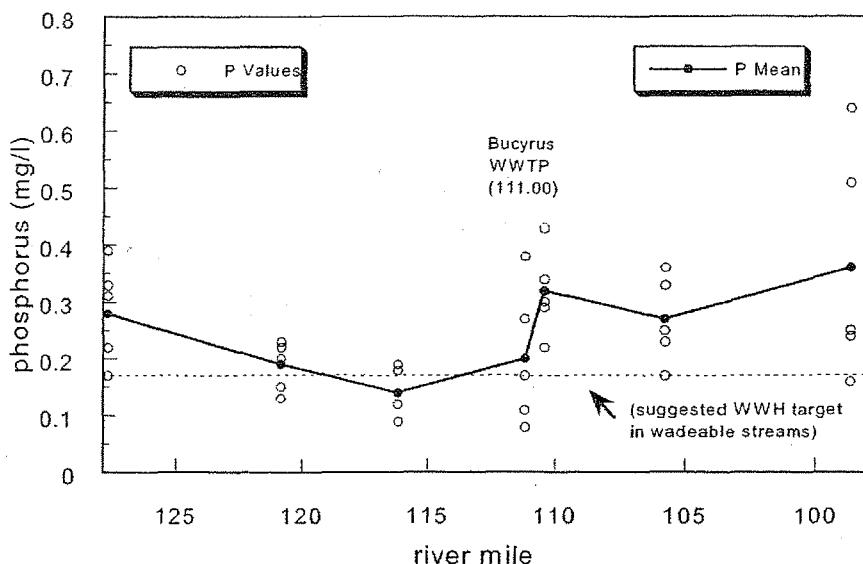


Figure 2F. Phosphorus values from grab samples collected from the Sandusky River in the Sandusky-Bucyrus assessment unit, June-October, 2001.

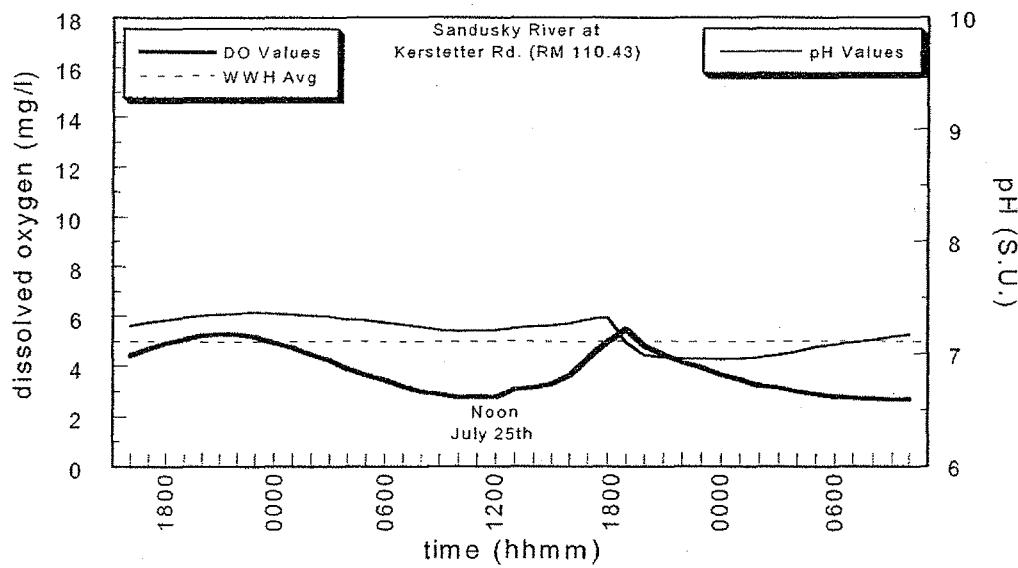


Figure 2F. Dissolved oxygen and pH values from the Sandusky River at Kerstetter Rd. (RM 110.4) recorded using continuous monitors, July 24-26, 2001.

Broken S	reek Asse	Jnit			
The Brok mainstem	Creek as itaries. B	unit (041	30) encon	he Broke	Creek
Aquatic 1	tainment	and habit	ments we	cted at 14	2001.
Surface w	ical/chem	r streams	ssessmen	presented	≥ 3A.
of grab s	collected a	sments w	ected at 1	he majori	e sets
intermitte	sample ha	reak interv	es with fe	; collecte	ry or
for inorga	imeters such	il measure	corded in	and was t	le lab
collected	the presen	s, nutrient	rogen dema	site had a	mple
was tested	ts of herb	olatile and	latile org	pounds a	r site
results tha	eds of herb	Sediment	was cond	one site	water
	ed State o	ater Qual	ards crite	esented in	B.
Four of te	h drainag	<50 mi ² i	esignated	mended a	use;
six were in	inment. F	on the Br	rd Creek.	had drai	s >50
ni ² . Biol	ndition of	sites refle	3 miles of	inment ar	es of
partial att	f the Wat	Habitat (V	uatic life	limited R	Vater
LRW) aq	use is rec	ed for the	'Red Run	Brandywi	from
he headw	upstream	nple Rd.). Recoi	l Modifie	water
Habitat (N	team segn	lude Brok	d Creek f	headwate	21.4